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<110> Craig Rosen,
      Steve Ruben
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PCT/US00/05881

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<222> (2003)
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<221> misc feature
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18

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19

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21

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<220>
<221> misc feature
<222> (696)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (701)
<223> n equals a,t,g, or c
<400> 30
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aatcctagaa aactcacaaa atgtgtgatg cttttgtagg tacctggaaa cttgtctcca 120
gtgaaaactt tgatgattat atgaaagaag taggagtggg ctttgccacc aggaaagtgg 180
ctggcatggc caaacctaac atgatcatca gtgtgaatgg ggatgtgatc accattaaat 240
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cactgcagat gacaggaaag tcaagagcac cataacctta gatgggggtg tcctggtaca 360
tgtgcagaaa tgggatggaa aatcaaccac cataaagaga aaacgagagg atgataaact 420
ggtggtggaa tgcgtcatga aaggcgtcac ttccacgaga gtttatgaga gagcataagc 480
caagggacgt tgacctggac tgaagttcgc attgaactct acaacattct gtgggatata 540
ttgttcaaaa agatattgtt gttttccatg atttagcaag caactaattt tctcccaagc 600
tgattttatt caatatggtt acgttggtta aataaacttt ttttagattt aaaaaaaaa 660
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<210> 31
<211> 1108
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (389)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (397)
<223> n equals a,t,g, or c
<400> 31
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ccaaacaact tttaattgat ccagaagatg atgtaagaga taatatttta aaatatgatg 120
aagaaggtgg aggagaagaa gaccaggact atgacttgag ccagctgcag cagcctgaca 180
ctgtggagcc tgatgccatc aagcctgtgg gaatcygacg aatggatgaa agacccatcc 240
acgccgagcc ccagtatccg gtccgatctg cagccccaca ccctggagac attggggact 300
tcattaatga gggccttaaa gcggctgaca atgaccccac agctccacca tatgactccc 360
tgttagtgtt tgactatgaa ggcagtggnt ccactgntgg gtccttgagc tcccttaatt 420
cctcaagtag tggtggtgag caggactatg attacctgaa cgactggggg ccacggttca 480
agaaacttgc tgacatgtat ggtggaggtg atgactgaac ttcagggtga acttggtttt 540
tggacaagta caaacaattt caactgatat tcccaaaaag cattcagaag ctaggcttta 600
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tgggctcaga gggaatatca gtgatccata ctgtttggaa aaacactgag ctcagttaca 720
cttgaatttt acagtacaga agcactggga ttttatgtgc ctttttgtac ctttttcaga 780
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gacaaaatat tttgtggtgg gagcagtaag ttaaaccatg atatgcttca acacgctttt 900
gttacattgc atttgctttt attaaaatac aaaattaaac aaamaaaaaa actcatggag 960
cgattttatt atcttggggg atgagaccat gagattggaa aatgtacatt acttctagtt 1020
ttagacttta gtttgttttt ttttttttt cactaaaatc ttaaaactta ctcagctggt 1080
tgcaaataaa gggagttttc atatcacc
                                                                  1108
<210> 32
<211> 526
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· 25

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<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (502)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (524)
<223> n equals a,t,g, or c
<400> 32
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tacacattta acacacagta gcaaattttg aacgatgtga ttgatataac ctaacaaatc 120
tgagccagtt attattagag ttgcagaata gaaacttgaa gtgctaaatg gaataatcca 180
aaggaaattt tttaaatgca ggttctagct gaaaaattca actataagaa aattgtattt 240
atataacatt tactattttt gaagactagt gagatttctg taataatttt aattctttaa 300
aaagtgaaag cttqttgtaa aqatattttc tttttqttat tagaaggaaa tacaaagaga 360
aaaatttctt tctttcatgg ggcatttgat aatttcagtc tttgacgatt tgtaagccta 420
gaatatacta agctgaataa cagctctttg gcctcagaat tttccagtag ccagtawttc 480
yggattaact aagttggaaa cncytattag gaacctccag tggnga
<210> 33
<211> 555
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (494)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (521)
<223> n equals a,t,g, or c
<400> 33
coggaccotg cacccagoga otgggcccog ogogcgccot cogogagggt ggaggoggog 60
gctgtgtgcg cagggcccgg caccggactg ggaccctggc gtccctccag gccttgcctc 120
ctgcgggags acagtttggc ttcacttctc tgaccccagc ctcggccgta aagtgaaaga 180
gaccggacca getteagett teggactetg gttettggat egtgteetet eeeetegee 240
gccctcttcc cccaatctga gccattkcag gcctctgcct gckgccccct ctctcctcgg 300
gategggtee ceagageeae cateteetga geeteecaee eegetgeetg ggeeetgtgg 360
ttgctgggcc tcccacctca aggaggggaa ggttgtacag cccgaacccg tggagcaatg 420
aagggcccqq qaanaccqqa ccggtacctg caggcgtacc ngtttcccta taqtqaqttq 540
tattagcgtt gcata
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PCT/US00/05881

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<210> 34
<211> 347
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (288)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (328)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (335)
<223> n equals a,t,g, or c
<400> 34
gggtcgaccc acgcgtccgg accgcgcggc tagtggtgtg aggatctgag ccccgtggtg 60
gggggtggag gcggctcctg cratctaaag ggacttgaga ctctcaccgg ccgcgcca 120
tgagggccct gtgggtgctg ggcctctcct gcrtcctgct gaccttcggg tcggtccgar 180
ctgaygatga agtcgatgtg gatggtacag tggaagagga tctgggtaaa agtagagaag 240
gttcaaggac agatgatgaa gtagtacaga gagaggaaga agctattnca gttggatgga 300
ttaaatgcat cccaaataag agaacttnag agagnaagtc cagaaaa
<210> 35
<211> 750
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (701)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (731)
<223> n equals a,t,g, or c
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ttctggctcc ttccagccat ggctctcaga gtccttctgt taacagcctt gaccttatgt 120
catgggttca acttggacac tgaaaacgca atgaccttcc aagagaacgc aaggggcttc 180
gggcagagcg tggtccagct tcagggatcc agggtggtgg ttggagccc ccaggagata 240
gtggctgcca accaaagggg cagcctctac cagtgcgact acagcacagg ctcatgcgag 300
cccatccacc tgcaggtccc cgtggaggcc gtgaacatgt ccctgggcct gtccctggca 360
gccaccacca gccccctca gctgctggcc tgtggtccca ccgtgcacca gacttgcagt 420
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gagaacacgt atgtgaaagg gctctgcttc ctgtttggat ccaacctacg gcagcagccc 480
cagaagttcc cagaggccct ccgagggtgt cctcaagarg atagtgacat tgccttcttg 540
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actgtgatgg agcaattaaa aaagtccaaa accttgttct ctttgatgca gtactctgaa 660
gaatteegga tteaetttae tteaaagagt teeagaacaa neetaaceca agateaetgg 720
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<210> 36
<211> 1291
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (29)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (298)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (695)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (795)
<223> n equals a,t,g, or c
<400> 36
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gatatcaaga tgatcctgaa aatggtgcag ctggactcta ttgaagattt gggaagtgac 120
ttgtacctgg aagctaccca ccttggcgaa attttctcct tacctgggcc agatgattaa 180
totgogtaga otoctoctot occacatoca tgcatottoc tacatttoco oggagaagga 240
agagcagtat ategeceagt teacetetea gtteeteagt etgeagtgee tgeagetnet 300
ctatgtggac tctttatttt tccttagagg ccgcctggat cagttgctca ggcacgtgat 360
gaaccccttg gaaaccctct caataactaa ctgccggctt tcggaagggg atgtgatgca 420
tctgtcccag agtcccagcg tcagtcagct aagtgtcctg agtctaagtg gggtcatgct 480
gacegatgta agtcccgagc ccctccaagc tetgctggag agagcctctg ccaccctcca 540
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cctgagccac tgctcccagc ttacaacctt aagcttctac gggaattcca tctccatatc 660
tgccttgcag agtctcctgc agcacctcat cgggntgagc aatctgaccc acgtgctgta 720
tectgteece etggagagtt atgaggaeat ceatggtame etceametgg agaggttget 780
atctgcatgc caggntcagg gagttgctgt gtgarttggg gcggcccagc atggttctgg 840
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cctgtgcccc tgtttcatgc ctaatarctg ggtgcacata tcaaatgctt cattctgcat 960
acttggacac taaagccagg atgtgcatgc atcttgaagc aacaaagcag ccacagtttc 1020
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ctgttgaaaa taaagagaag caatgtgaag c
<210> 37
<211> 1535
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1413)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1526)
<223> n equals a,t,g, or c
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tgcacccagg ccacgtgctg cccgacgagg agctgcagtg ggtgttcgtg aatgcgggtg 180
gctggatggg cgccatgtgc cttctgcacg cctcgctgtc cgagtatgtg ctgctcttcg 240
gcaccgcctt gggctcccgc ggccactcgg ggcgctactg ggctgagatc tcggatacca 300
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caggggagac ggtagtacac gggcctggtg aggcaacagc tgtggagtgg gggccaaaca 420
catggatggt ggagtacggc cggggcgtca tcccatccac cctggccttc gcgctggccg 480
acactgtett cageacceag gaetteetea ecetetteta tactettege teetatgete 540
ggggcctccg gcttgagctc accacctacc tctttggcca ggacccttga ccagccaggc 600
ctgaaggaag acctgcggat ggacaggagc gggcaggccc gcacatatcc acttgctgga 660
gcccatgttt acagacaggg acatacacca tgcagatcct gagttcctgc tgtatgagca 720
gggatatcca tgcttatgta tccaaacaca gagacccatg ggaacaaatg agacacatat 780
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gagttaagga tgggggggg tattatactg cctcagtctg actcctcaac ccagcagcaa 1020
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gatgcccttc cccttctccc ctgtcctcac catatgcctt atccccattc tactcccctg 1140
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acgagagtaa tttgaagaat gettgaagte agegtettee attecagaaa gacceccatt 1260
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acacacaca cacatacaca cacacacaca canacacata tcacagtttt cacacagccc 1440
ctgctgcatt ctctgtccat ctgtctgttt ctattaataa agatttgttg atctgttcca 1500
aaaaaaaaa aaaaaaaaa aaaaangggg gggct
                                                                  1535
<210> 38
<211> 295
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<212> DNA

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<213> Homo sapiens
<400> 38
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tgcattggcg gcggtcaggg aattgcgatg gtgattgaac ggttgaatta atcaataaaa 120
acaccegata gegaaagtta tegggtgttt tettgaacat egaeggegaa ggtaacceca 180
ttaatcacca gtcaaaactt ttcaccagcg tcactcgcca gcattacgca tcggtacaat 240
aaatgtttcc tqtttctcat tqaccgatcc ttcatcqqtq atcaqcqtca ttqqq
<210> 39
<211> 1300
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (641)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (1297)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1298)
<223> n equals a,t,g, or c
<400> 39
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totggaagtt aatggttttg agtgattttt aaatcottgc tggcggagag gcccgcctct 120
ccccggtatc agcgcttcct cattctttga atccgcggct ccgcggtctt cggcgtcaga 180
ccagccggag gaagcctgtt tgcaatttaa gcgggctgtg aacgcccagg gccggcgggg 240
gcggggccga ggcgggccat tttraataaa qaqqcgtgcc ttccaqqcaq qctctataaq 300
traccgccgc ggcgagcgtg cgcgckttgc aggtcactgt agcgggactt cttttggttt 360
tetttetett tggggeacet etggaeteae teeccageat gaaggegetg ageceggtge 420
geggetgeta egaggeggtg tgetgeetgt eggaacgeag tetggeeate geeeggggee 480
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aaatcctaca gegegteate gactacatte tegacetgea ngtagteetg geegageeag 660
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ttgtcatctc caacgacaaa aggagctttt gccactgact cggccgtgtc ctqacacctc 780
cagaacgcag gtgctggcgc ccgttctgcc tgggaccccg ggaacctctc ctgccggaag 840
ccggacggca gggatgggcc ccaacttcgc cctgcccact tgacttcacc aaatcccttc 900
ctggagacta aacctggtgc tcaggagcga aggactgtga acttgtggcc tgaagagcca 960
gagetagete tggccaccag ctgggcgacg teaccetget eccaccecac ecceaagtte 1020
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gcggcggcag agctggtctt ctggtctcct tggagaaagg ttctgttgcc ctqatttatq 1140
aactctataa tagagtatat aggttttgta ccttttttac aggaaggtga ctttctqtaa 1200
caatgcgatg tatattaaac tttttataaa agttaacatt ttgcataata aacgattttt 1260
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aaacaaaaa aaaaaaaaaa aagggggcc gccctanngg

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<210> 40
<211> 215
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (210)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (213)
<223> n equals a,t,g, or c
<400> 40
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cttctcaata acttcatctt tctagagact cattacctgt gggcttgtcm aacctggact 180
atttggccaa atwggttgga taaaaaaggn atntt
                                                                   215
<210> 41
<211> 474
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (85)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (216)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (374)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (449)
<223> n equals a,t,g, or c
<400> 41
togacccacg cgtccgggag actacggtaa aggcgcgcgc acgcagccaa catgccggtg 60
gcccggagct gggtttgtcg caagnetacg tgacccctcg gaggcccttt gagaagtcgc 120
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ggctcgacca agagctgaag ctgataggcg agtacgggct ccggaacaaa cgtgaggtgt 180
ggagggtcaa gttcaccetg gccaagatee gcaagneege gegggaretg etgacgetgg 240
acgagaagga cccgcggcgc ctgtttgagg gcaatgcctt gcttcggcga ctggtgcgca 300
ttggagtgct ggacgagggc aagatgaagc tggattatat cctgggtctg aagatgagga 360
ttcttggaga grcntctgca gacccaggty tttcaagctg gggttggcca atccatccac 420
catgccctgt gctgatccgc caggccacnc aggtccgaaa gcaagtggtg aaca
                                                                  474
<210> 42
<211> 425
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (375)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (403)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (418)
<223> n equals a,t,g, or c
<400> 42
cctcgccttc gatgaatatg ggcgcccttt cctcatcatc aaggatcagg atcgcaagtc 60
togtottatg ggactggago totcaagtot catatoatgg cggcaaaggo tgtagcaaat 120
accatgagaa catcacttgg accaaatgga cttgataaaa tgatggtgga caaggacggc 180
gacgtgacgg tcacaaacga cggtgccacg attctgagca tgatggatgt cgatcaccag 240
attgccaagc tgatggtgga gctgtccaaa tcccaggatg atgaaatcgg agatggggac 300
cacgggggtg gttgtcctgg ccggcgccct gctggaagga ggccgagcag ctgctggacc 360
geggeattea meegnteagg ategeegaeg gttaegagea ggntgeeege attggeente 420
gagca
                                                                   425
<210> 43
<211> 1187
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (33)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (41)
<223> n equals a,t,g, or c
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<220>

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<221> misc feature
<222> (1149)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1156)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1160)
<223> n equals a,t,g, or c
<400> 43
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tttgtggatc gctgtgatcg tcacttgaca atgcagatct tcgtgaagac tctgactggt 120
aagaccatca ccctcgaggt tgagcccagt gacaccatcg agaatgtcaa ggcaaagatc 180
caagataagg aaggcatccc tcctgaccag cagaggctga tctttgctgg aaaacagctg 240
gaagatggkc gcaccetgtc tgactacaac atccagaaag agtccaccyt gcacctggtr 300
ctccgtctca gaggtgggat gcaaatcttc gtgaagacac tcactggcaa gaccatcacc 360
cttgaggtcg agcccagtga cacyatcgag aacgtcaaag caaagatcca rgacaaggaa 420
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accetytety actacaacat ecagaaagag tetaccetyc acetygtyet ecyteteaga 540
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ccgagtgaca ccattgagaa tgtcaaggca aagatccaag acaaggaagg catccctcct 660
gaccagcaga ggttgatctt tgctgggaaa cagctggaag atggacgcac cctgtctgac 720
tacaacatcc agaaagagtc caccctgcac ctggtgctcc gtcttagagg tgggatgcag 780
atcttcgtga agaccctgac tggtaagacc atcactctcg aagtggagcc gagtgacacc 840
attgagaatg tcaaggcaaa gatccaagac aaggaaggca tccctcctga ccagcagagg 900
ttgatctttg ctgggaaaca gctggaagat ggacgcaccc tgtctgacta caacatccag 960
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accetgactg gtaagaccat cacyetegaa gtggageega gtgacaccat ygagaatgte 1080
aaggcaagat ccagacaagg aaggcatcct cctgaccagc agargttgat tttgctggga 1140
aaarcttgna aatggncgan cccttttgat taaaatcccg aaagttc
                                                                   1187
<210> 44
<211> 515
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (217)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (465)
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<223> n equals a,t,g, or c
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<211> 939
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PCT/US00/05881

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ctcattgtcc gggagaacac agagggcgag tacagcagcc tggagcatga gagtgtggcg 660
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gccttcaagc tggcgcagga gagcgggcgc aagaaagtga cggccgtgca caaggccaac 780
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cctcagwtca ccttcgagaa catgattgtg gataacacca ccatgcagct ggtgtnccgg 900
ccccagcagt ttgatgtcat ggtgatgccc aatctctatg gcaacatcgt caaacaatgt 960
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<211> 328

<212> DNA

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<222> (170)
<223> n equals a,t,g, or c
<400> 56
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gtagccttgg ccctttttca tctgagtccc atttagagat gtataaagaa tgttgttgag 120
tanggcgcgg tggctcacgc ctgtaatccc cacacnttgg gaaggccgan gcaggcggat 180
cacgaggtca gaagattgag accattctgg ctaacatggt gaacccccat ctctactaaa 240
aatacaaaaa ttagtcaggc gcgatggcgg gcacatgtag taccagctac tcgggaggct 300
gatgcagaag aataacttgg aacctggg
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<221> misc feature
<222> (1117)
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<222> (1206)
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<222> (1467)
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cgaatggtat cacatgcaat attttaatgg agcaatggga gaggctcttt gaaatggggt 180
ttgcatcttt ttgtaacatt ttgatttctc tggtgcctta ttcctacttg atgctggcac 240
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tgtttgagca tgcaggggcc atggggagtt tggtgtcagt tggtggagaa gggactagat 360
ggcatctctt agccgaggcc aacaggaact gcacaagtcc attatagtca aagttagcaa 420
ttttgatacg taaacacaat acttcattct tcctcatctg agctttcctt ccttcttcct 480
tttctatctc taccttctca taaaggtgct gctgctgctg ctaaggtgcc cggagtccag 540
aatgtccatt aatcactcag gcacgagcct ggcactgcca cgtcagcccc cagcatgacc 600
aaacccaggt ttctcttgct tggggctgag aactgtcaga tttttctcat caaaaatgtt 660
ttccaaggaa tcagtggatt acagtttttc tgcattgaaa atgcactttn aaaaaataaa 720
ttaaagctcc agactgttta aaatatacag agggagcagg ggaaagttaa gcatgtgcta 780
gtgtctgaac ccagttcagt ttatctccag ttgaaacgat atacactata ttatgtataa 840
atgtatacac acttcctata tgtatccaca tatatatagt gtatatatta tacatgtata 900
ggtgtgtata tgtgcatata tacacacatg cacataacaa aatcagatgc tcattacaaa 960
tccagatgct cattacaaaa ccagatgcta cacaaacagc agcagaggaa acaaggttgg 1020
actottgcaa cagatcacaa aaaataaaaa cagotacttg cagtgacttt ggtcatttot 1080
gtatgttcat aaagaatgga tttgtaacna ggaaaanaag gaccagtgtt agtgaaaagg 1140
gaagatgggg cgaaccatct tgatccgatg cgaatccgta atggtctata tacatttcat 1200
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cagtantcat ntagtcangt gattgattca gttctgctat gaaacattgt aacacgtacc 1260
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atgggacgag ctccttaggt ggagataccg gggaatagag aaagatgcac gtctctgcgt 1380
tgtcgcgtgc tttgaggggc ggtctttacc ttccgtgttg gagtcctccc tgagtccggc 1440
gctggntgcg ggacacggcc cttctcngtg tcccaggcgc tgcctcatt
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<211> 1283
<212> DNA
<213> Homo sapiens
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ctgtggagaa aatgcttgta gtaacatatt ttaaatgtac taacaagacc agtcatgggm 180
aaatgtttct gagacaaatc tctagtttat gatttaaaac agtacgtttt cttacgtgac 240
gaaaacaaaa agtgtgttaa tttgttccca gtggttgaag ttatttgcca acaattttac 300
tgtttctctt catctgttta taggatttct ctgcctcttc caaacttttc ctccctgaac 360
ctgaggggta agcattttat ttccctttag gaaaaacgtc agctgcttgt aaccactgtg 420
tttatgtcaa agcattcatt ttttttagga tatctgaaaa aatgccatat aagaraaaam 480
tctataaaac atctatwatt ttcgaaccca agtacactct tgcattctaw gctttaagtt 540
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44

aaatgcaaan tootttttoo ttottootgo tgcaagtact atotoatoot gatgotcaag 600 agtgtcaggg cctgggtttc caaacagaga ctaccctaaa attatttggc gagtagtact 660 ttacacaatt gcctctcccc cacaaatcat aattgtttca gtaaaatggt tacttggttt 720 ttccaagaaa aaactcgttt ttactcattt ttggcctgtt tgtttattta gaaactaatc 780 tggattcact ccctctggtt gatacccact caaaaaggac acttctgatt aagacggttg 840 aaactagaga tggacaggtt atcaacgaaa cttctcagca tcacgatgac cttgaataaa 900 aattgcacac actcagtgca gcaatatatt accagcaaga ataaaaaaga aatccatatc 960 ttaaagaaac agctttcaag tgcctttctg cagtttttca ggagcgcaag atagatttgg 1020 aataggaata agctctagtt cttaacaacc gacactccta caagatttag aaaaaagttt 1080 acaacataat ctagtttaca gaaaaatctt gtgctagaat actttttaaa aggtattttg 1140 aataccatta aaactgcttt ttttttcca gcaagtatcc aaccaacttg gttctgcttc 1200 aataaatett tggaaaaact maaaaaaaaaa aaaaaaaaam mngggggggn geeeggggtn 1260 concegggg goocaagttt tac 1283 <210> 59 <211> 740 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (696) <223> n equals a,t,g, or c <400> 59 agaaggagcg cggggaggac gtaccttgtg agatgcgagc cggccaacag cttgcaagca 60 tgctccgctg gacccgagcc tggaggctcc cgcgtgaggg actcggcccc cacggcccta 120 gcttcgcgag ggtgcctgtc gcacccagca gcagcagcgg cggccgaggg ggcgccgagc 180 cgaggccgct tecgetttee tacaggette tggacgggga ggcagecete eeggeegteg 240 tetttttgca egggetette ggcagcaaaa etaacttcaa etecategee aagatettgg 300 cccagcagac aggccgtagg tgctqacqqt qqatqctcqt aaccacqqtq acaqccccca 360 cageccagae atgagetacg agateatgag ecaggaeetg caggaeette tgeeccaget 420 gggcctggtg ccctgcgtcg tcgttggcca cagcatggga ggaaagacag ccatgctgct 480 ggcactacag aggccagagc tggtggaacg tctcattgct gtagatatca gcccagtgga 540 aagcacaggt gtctcccact ttgcaaccta tgtggcagcc atgagggcca tcaacatcgc 600 agataggett geccegetee egtgeeegaa aactggegga tgaacagete agttetgtea 660 tocaggacat ggccgtgcgg cacacttgct tcaatnaacc tggtagaggt agacgggcgt 720 tttcgtgttg gagggtggaa 740 <210> 60 <211> 1291 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (6) <223> n equals a,t,g, or c <220> <221> misc feature

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<222> (7)
<223> n equals a,t,g, or c
<220>
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<222> (147)
<223> n equals a,t,g, or c
<220>
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<222> (1211)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (1283)
<223> n equals a,t,g, or c
<400> 60
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catteggeag ceaatagaat etaaganatg geggaaaaat gatteegeet egggagetaa 180
acttgattgg cagtttagct aaccaatcga gaacgccatt tgtamccctt ggcaggcamc 240
gageteegte gtetegttte eggeggtege gegetetttt etegggaegg gagaggeegt 300
gtagcgtcgc cgttactccg aggagatacc agtcggtaga ggagaagtcg aggttagagg 360
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aaaactttta acttggagaa gcaaaaccat actccaagaa agcatcatca acatcaccac 480
cagcagcagc accaccagca gcaacagcag cagccgccac caccgccaat acctgcaaat 540
gggcaacagg ccagcagcca aaatgaaggc ttgactattg acctgaagaa ttttagaaaa 600
ccaggagaga agacetteae ccaaegaage egtetttttg tgggaaatet teeteeegae 660
atcactgagg aagaaatgag gaaactattt gagaaatatg gaaaggcagg cgaagtcttc 720
attcataagg ataaaggatt tggctttatc cgcttggaaa cccgaaccct agcggagatt 780
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                                                                   1291
<210> 61
<211> 971
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (856)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (886)
<223> n equals a,t,g, or c
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cggcggctca gggcttctct gctgcgctcc cggttcgctg gacgggaaga agggctgggc 180
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tgagcgcgga cgcagcggcc ggggcgcccc tgccccggct ctgctgcctg gagaagggtc 300
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cagtggaccc agactccccg gctgaggctt cagggctccg ggcccaggat cgcattgtgg 840
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                                                                971
<210> 62
<211> 618
<212> DNA
<213> Homo sapiens
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<222> (563)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (598)
<223> n equals a,t,g, or c
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ggacccacgc tgcattttca tcgaaagagt gaacatctag tgggactgaa agttctttgt 120
tgtttcagat tgtagagtgt gattgatgga attggtctgt ggaaattgca ttgttttat 180
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aattggacat gaataaaact ctagtgggaa aaagttcaaa ggtgattgaa taaataattt 480
aactttgccc tgggtattaa gtccagggct cccagattgt ggagcagagc cttggagagt 540
acaggatgaa ggagatagat gcncctttga cttgccggga atgaaattgg attaatgnaa 600
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<222> (15)
<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<222> (27)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (29)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (1123)
<223> n equals a,t,g, or c
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gtggccatct tgccgcagct gttcatggtg agcaagaccg gcgaggcgga gaccatcacc 180
agccactact tgtttgcgct aggcgtttac cgcacgctct atctcttcaa ctggatctqq 240
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tetttecact etttagtttt tgattetgat gaetegtttt tettetaete tgtggeecea 660
atttttataa agtgtttttg agtgtcctat gggccggggc agggtccaag atcttttccc 720
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ttttcatagt aattttttc cccagagttt gaattttttg gtcttctcct ggttttttgg 960
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<222> (365)
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<222> (371)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (380)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (391)
<223> n equals a,t,g, or c
<400> 64
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gcactaggac ccagggggca ggggggagcc tccctggctg gaagggatgg caggagcgct 180
ggtgcaggta gctatggagc tctggccaac tctgcctggg gaggtcccag gaaggtggcg 240
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actaggacca gggccctggg cctccccaca ctccccatgg agaagctggc ggcctctaac 360
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<210> 65
<211> 2836
<212> DNA
<213> Homo sapiens
<220>
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<222> (2834)
<223> n equals a,t,g, or c
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49

<220>
<221> misc feature
<222> (2836)
<223> n equals a,t,g, or c
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WO 00/55173 PCT/US00/05881

52

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58

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61

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<211> 1710

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<213> Homo sapiens

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<221> misc feature

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<222> (1378)

WO 00/55173 PCT/US00/05881

62

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63

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65

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accageteta ttatgaaggg gagetgeagg cetgtgetga tgtegtggat egagaaeget 480
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70

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<222> (49)
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acagaccatt totcagetee attetactgt teacetgatt gaatttgeea ggaagaatgt 240
gtatagtgcc aatcagaaaa ttcaggatgc tcaggataag ctctacctct catgggtaga 300
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71

<210> 91

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<212> DNA
<213> Homo sapiens
<220>
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<222> (677)
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<222> (725)
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<221> misc feature
<222> (742)
<223> n equals a,t,g, or c
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<211> 1657
<212> DNA
<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
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<222> (478)
<223> n equals a,t,g, or c
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<221> misc feature
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<223> n equals a,t,g, or c
<400> 93
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aaaan
                                                                  485
<210> 94
<211> 764
<212> DNA
<213> Homo sapiens
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<222> (202)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (565)
<223> n equals a,t,g, or c
<400> 94
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grtggctgga gaaccaggac cccagagagg tggggccact gaggctggtg cagttgcgct 180
cactcatcag catggcccgg angctggggg gcatcgggca taccccagca ggcccctatg 240
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<210> 95
<211> 707
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (45)
<223> n equals a,t,g, or c
<400> 95
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<213> Homo sapiens
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<221> misc feature
<222> (45)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (50)
<223> n equals a,t,g, or c
<400> 96
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caagcccgaa gatgccccc attctctwag tgatggcggc gttagggttt gagagaaggg 180
aatttggctc aacttcagtt gagagggtgc agtccagaca gcttgactgc ttttaaatga 240
ccaaagatga cctgtggtaa gcaacctggg catcttagga agcagtccct ggagaaggca 300
tgttcccaga aaggtctctg gagggacaaa ctcactcagt aaaacataat gtatcatcat 360
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gattgattga ttactattaa ctacaaggta taatttacta tcaccttatt taaattttat 720
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<220>
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<222> (248)
<223> n equals a,t,g, or c
<400> 98
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agactsccct tagagataga gaaacagacc caagaaatgt gctcaattgc aatgggccac 120
atacctagat ctccagatgt catttcccct ctcttatttt aagttatgtt aagattacta 180
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                                                                249
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<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (612)
<223> n equals a,t,g, or c
<400> 99
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acctcatcac ctqcqarqca cqtqccccqc gcttcccccq acqacccctc tqqrctcccq 360
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76

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77

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raaatgcagt attaaggatc cagcttctat tgaaaccaat atccatttgc atcataacaa 600
caaacatttg aatgagatgg tcacacttgt acttatcagc aggttccttt aataacaaag 660
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84

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<223> n equals a,t,g, or c
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<213> Homo sapiens
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<222> (535)
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<222> (517)
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91

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<211> 1139
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<213> Homo sapiens
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<222> (1053)
<223> n equals a,t,g, or c
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<222> (1124)
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<223> n equals a,t,g, or c
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<222> (2039)
<223> n equals a,t,g, or c
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<213> Homo sapiens
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<211> 1987
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
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<222> (7)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (14)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (517)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (1960)
<223> n equals a,t,g, or c
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<210> 127
<211> 1234
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (857)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (1204)
<223> n equals a,t,g, or c
<220>
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<221> misc feature
<222> (1226)
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<211> 863
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (840)
<223> n equals a,t,q, or c
<400> 128
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<210> 130
<211> 379
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (373)
<223> n equals a,t,q, or c
<400> 130
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<210> 131

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<213> Homo sapiens
<400> 131
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<222> (963)
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<223> n equals a,t,g, or c
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101

<220>

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<222> (1845)
<223> n equals a,t,g, or c
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gcccgttttc ccttcaaaac acagtcacca ccgggatcgt gagcaccacc cagcgaggcg 720
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<213> Homo sapiens
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<223> n equals a,t,g, or c
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<221> misc feature
<222> (1255)
<223> n equals a,t,g, or c
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<213> Homo sapiens
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<213> Homo sapiens
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<222> (171)
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<221> misc feature
<222> (1654)
<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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PCT/US00/05881

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109

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112

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114

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<223> n equals a,t,g, or c
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tocagoagea geteggggag geocceagtg atgceageec etaggeteea agageeceea 360
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<221> misc feature
<222> (499)
<223> n equals a,t,g, or c
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WO 00/55173 PCT/US00/05881

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PCT/US00/05881

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131

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135

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<210> 180

<211> 243

<212> DNA

<213> Homo sapiens

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ccagagggaa gtgtggtgtg tgggcacaac gggaaacgct aaccaggcac agagctcaac 180
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tat
<210> 181
<211> 813
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<213> Homo sapiens
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<222> (726)
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813
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<210> 182
<211> 822
<212> DNA
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<222> (37)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (49)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (370)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (567)
<223> n equals a,t,g, or c
<400> 182
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cogtgctact ctcttcctcc aggccggtcc ccggcgcgtg cgcgcgatcc atgtccatgt 120
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<210> 183
<211> 1095
<212> DNA
<213> Homo sapiens
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<222> (1082)
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<220>
<221> misc feature
<222> (1094)
<223> n equals a,t,g, or c
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cctcaccgtg tccgcgctct tttcgcggat cttcgggaag aagcagatgc ggattctcat 180
ggttggcttg gatgcggctg gcaagaccac aatcctgtac aaactgaagt tgggggagat 240
tgtcaccacc atcccaacca taggcttcaa tgtagaaaca gtggaatata agaacatctg 300
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<210> 184
<211> 3675
<212> DNA
<213> Homo sapiens
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<222> (2204)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (3329)
<223> n equals a,t,g, or c
<400> 184
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tegtgeteaa tggaaaccce etgetgeatg cacageteeg geageteeca gegatgaegg 120
ccctgcagac cctgcacctg cggagaccca gcgcacccag agcaacctgc ccaccagcct 180
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ggagctgtcc ctgtgcatag accagtgggt gcacgtggaa actctgaacc tgtcccgaaa 360
tragetrace tractgreet cagerattig caagetgage aagetgaaga agetgtacet 420
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PCT/US00/05881

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<210> 186
<211> 817
<212> DNA
<213> Homo sapiens
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<211> 1286
<212> DNA
<213> Homo sapiens
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<220>

PCT/US00/05881

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<222> (1245)
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<222> (1254)
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<221> misc feature
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WO 00/55173

145

PCT/US00/05881

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<222> (535)
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<220>
<221> misc feature
<222> (559)
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<222> (639)

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153

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WO 00/55173 PCT/US00/05881

159

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174

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WO 00/55173 PCT/US00/05881

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176

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WO 00/55173

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WO 00/55173

193

PCT/US00/05881

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194

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195

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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<221> misc feature
<222> (2395)
<223> n equals a,t,g, or c
<400> 257
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<221> misc feature
<222> (31)
<223> n equals a,t,q, or c
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<222> (60)
<223> n equals a,t,g, or c
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<221> misc feature
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```
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2071)
<223> n equals a,t,q, or c
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aattaagagt gtctcccata gaaaagcagt ggaggcccca cagggcaagt acaaaacaga 2040
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                                                                  2092
<210> 259
<211> 387
<212> DNA
<213> Homo sapiens
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<220>

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<222> (377)
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caccaaggag agagaccaaa agcctctgat ttttaatttc cataaaatgt tagaagtata 240
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<210> 260
<211> 3712
<212> DNA
<213> Homo sapiens
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3712
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<221> misc feature
<222> (1791)
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<400> 262
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203

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<223> n equals a,t,g, or c
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<222> (194)
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211

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<210> 274

<211> 843

<212> DNA

<213> Homo sapiens

<220>

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<221> misc feature
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<212> DNA
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<223> n equals a,t,g, or c
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<221> misc feature
<222> (1408)
<223> n equals a,t,g, or c
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<211> 1923
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<213> Homo sapiens
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<223> n equals a,t,g, or c
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<221> misc feature
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<223> n equals a,t,g, or c
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<222> (818)
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PCT/US00/05881

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<222> (1017)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (1018)
<223> n equals a,t,g, or c
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218

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<211> 1556

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PCT/US00/05881

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<213> Homo sapiens
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PCT/US00/05881

WO 00/55173

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WO 00/55173

240

PCT/US00/05881

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WO 00/55173

242

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PCT/US00/05881

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WO 00/55173

253

PCT/US00/05881

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255

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257

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<210> 328

<211> 505

<212> DNA

<213> Homo sapiens

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<222> (332)
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259

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<220>

260

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<400> 328
aattoggcan agggnagtgo gaagtagtgg gtgacttttg ttototttot ggcagaactt 60
tgcctacaca ttcctactac ccctgggaat tctaactcag atgtgggtag cagcttcctc 120
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262

aaagagaaac tttttcccag ctgggtgctg tggctcacac ctgtgaatcc cagccctttg 180 gnaggctgna gtgggcagat cgcttgagcc caggagtttg agatcagcct gggcaacatg 240 gtgaantcca tctctgtgaa aaatacaaaa attagccagg tgtggtggtg cgcgcctgtn 300 anteceaget actagggagg etgaaggtgg gnggnttgnt tnageceagg aggttgagge 360 tgcattnggc tgggattcaa accatgttac tccntgacca ngtgngncct ntttcaaann 420 angnaaggga aggggnaagn aaaggaaaag nngnagggng atgccgntnn tngnntngna 480 gnngnatnan ntaaaaattt ggggg <210> 329 <211> 559 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (1) <223> n equals a,t,g, or c <220> <221> misc feature <222> (2) <223> n equals a,t,g, or c <220> <221> misc feature <222> (4) <223> n equals a,t,g, or c <220> <221> misc feature <222> (6) <223> n equals a,t,g, or c <220> <221> misc feature <222> (335) <223> n equals a,t,g, or c <220> <221> misc feature <222> (343) <223> n equals a,t,g, or c <220> <221> misc feature <222> (373) <223> n equals a,t,g, or c <220> <221> misc feature

<222> (385)

263

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<223> n equals a,t,g, or c

264

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<221> misc feature
<222> (553)
<223> n equals a,t,g, or c
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ggggacagag cgagactcca tctcaaaaaa aaaaaaaaa aaaattaaaa attaagttct 120
ttagttgcac tagccatatt tcaaatactt gatggataca tgtggctagt ggctaacata 180
agggatagca cagatataaa acatttcctc ccaaagtgct gggattacag gcatgagcca 240
ccgcgcccgg cctatcatat gaattttgag ggaacacaat catgcagtct gtagcagatg 300
gtaataggct gatatattac acttgttgat gtaanctgga tangtttctt tcttctccaa 360
ggacagcttt ttnaatattt aacantncca ttaatttttc agtttccggg agaattttat 420
aatttaaaat tgccgactta ngganaancc aattggncca accattacaa tanatttta 480
attccgntta aaaaatccca ccngnggggg aattccgctt aaaattttat tttccattat 540
tcccaatggc ntnaattta
<210> 330
<211> 467
<212> DNA
<213> Homo sapiens
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<222> (99)
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<220>
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<220>
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<222> (145)

WO 00/55173

265

PCT/US00/05881

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<220>
<221> misc feature
<222> (256)
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<221> misc feature
<222> (263)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (275)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (298)
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<222> (341)
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<222> (344)
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<221> misc feature
<222> (391)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (393)
<223> n equals a,t,g, or c
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WO 00/55173

266

PCT/US00/05881

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<220>
<221> misc feature
<222> (398)
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<220>
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<222> (402)
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<221> misc feature
<222> (422)
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<222> (428)
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<221> misc feature
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<222> (453)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (456)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (458)
<223> n equals a,t,g, or c
<400> 330
aatnatgete tgegtgatga tgttgeeget ggtegtegte ggttgeacat caaageagte 60
tgtcagtcag tgcgtgaagc caccaccgcc tccggtggna tgaatgcagc ctccccccga 120
ctggncagac accgntgnaa cgggnattat ttcaccctca gagagaggct gatcactatg 180
caaaaacaac tgggaggaaa cccagaagta tattgaatga gcagtgcaga ttagagttgc 240
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267

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ccatatcgat gggcancaat tgncaattat tgtgnagcaa tacacacggg gtttccangg 300
gagtnttaaa tgccttaaag taattaaaan ccggggcaat nccnttttac ggatgttttg 360
ctggggtttc cgtttttaac caacattttt ntnggggncc gnccacaaat tttggggttg 420
gnattggncg ttttttcttn ntggccccat ttnccngnaa acggggg
<210> 331
<211> 418
<212> DNA
<213> Homo sapiens
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<220>
<221> misc feature
<222> (37)
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<221> misc feature
<222> (126)
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<220>
<221> misc feature
<222> (131)
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<220>
<221> misc feature
<222> (196)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (202)
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<220>
<221> misc feature
<222> (257)
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<220>

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<221> misc feature
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<222> (380)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (387)
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cttcctttcc tgtagggaat ctcacgtaaa atgaaatctt ccctccccca aggtgtccgc 120
aatgtngcca ntgtctgtct gcagattggc tacccaactg ttgcatcagt accccattct 180
atcatcaacg ggtacnaacg antcctggcc ttgtctgtgg agacggatta caccttccca 240
cttgctgaan aagtcanggc ttcttggctg atccatctgc cttngtggct gctgcccngt 300
tggctgctgc caccacact gctcctgctg ctgctgcncc ccancttaag ttnaaaccca 360
agaaaatccg aagatccgan aaagatntgg attgggtctc tttgactaat caccaaaa 418
<210> 332
<211> 486
<212> DNA
<213> Homo sapiens
<220>
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<222> (9)
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WO 00/55173

<212> DNA

269

PCT/US00/05881

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<221> misc feature
<222> (379)
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<221> misc feature
<222> (415)
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<220>
<221> misc feature
<222> (446)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (478)
<223> n equals a,t,g, or c
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<222> (485)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (486)
<223> n equals a,t,g, or c
<400> 332
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tegetateet gaegetggtg aaegeeegt acaagegagg attttactge ggggatgaet 120
ccatccggta cccctaccgt ccagatacca tcacccacgg gctcatggct ggggtcacca 180
tcacggccac cgtcatcctt gtctcggccg gggaagccta cctggtgtac acagaccggc 240
tctattctcg ctcggacttc aacaactacg tggctgctgt atacaaggtg ctggggactt 300
cctgtttggg gctgccgtga gccagtctct gacagacctg gccaagtaca tgattgggcg 360
totgaagooc aattotaano gtotgogaac oogattgaac oggtoaatgo togtnatgtg 420
cagtggagaa gtttgcaggg aacctnttga ttcacgagca gtgtttttaa tcggaatntc 480
tttgnn
<210> 333
<211> 268
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270

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 <221> misc feature
 <222> (69)
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 <221> misc feature
 <222> (78)
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· <220>
<221> misc feature
<222> (218)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (244)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (260)
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<223> n equals a,t,g, or c

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<220>
<221> misc feature
<222> (263)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (264)
<223> n equals a,t,g, or c
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cccacgctgt ccgatgattt gtcacaatct tatcantaat cattactctg ttttttatat 60
ttcaactana agtatcanaa tatagcnttc cagaaaaccc cgaancanag tcactgacta 120
catcaaagtc tactacacct tgagaaaaca aatgaacgan aatctatttt cctcattcat 180
taccccaaca ataataggac tccctatcgt aattattntc actatgtttc caagcattga 240
tatncccatc acctacccgn ctnntcaa
<210> 334
<211> 517
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (214)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (259)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (302)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (332)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (360)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (410)
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (436)
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<220>
<221> misc feature
<222> (447)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (463)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (489)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (496)
<223> n equals a,t,g, or c
<400> 334
cggaaaggag cgcctactaa ggacgccgtc gaggtccggg gcgcctcaac tctatagctc 60
taactggcta gaagtgccca acgtggaatg tttctttttt aaaggcggct cttgaagcga 120
cccggaagcg gaagtggaag aaagttctag tggcttgaga ttaagcctga tcaagatgac 180
aacctcccaa aagcaccgag acttcgtggc agancccatg ggggagaacc agtggggaac 240
ctggctggga ttggtgaant cctgggcaag aaactggaag aaagggtttt gacaaggcta 300
tnttgtcttg gccatttctg gtgctaaaaa anataaaaac tctcccggaa tggtgaaaan 360
ctttttgggc cacccaacat cccgaatgtc cgatgctcca aaatgtgcan cctcttttat 420
gtctttggaa tctctncccc cccccnatt tgaccaattg ganccccctt cctcaagaaa 480
atgttgttnc ccccanttcc ggttttgatt tccccac
<210> 335
<211> 297
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (19)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (155)
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273

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<220>
<221> misc feature
<222> (156)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (164)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (166)
<223> n equals a,t,g, or c
<220>
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<222> (167)
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<222> (201)
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<220>
<221> misc feature
<222> (224)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (226)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (244)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (245)
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<223> n equals a,t,g, or c

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<220>
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<222> (246)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (252)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (265)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (267)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (286)
<223> n equals a,t,g, or c
<400> 335
ctccgcaaat tgaaccctnc actcaaaggg aaacaaaagc tggagctcca ccgcggtgac 60
ggccgctcta gaactagtgg ggggcccggt acccaattcg ccctatagtg agtcgtatta 120
caattcactg gccgtcgttt tacaacgtcg tgacnnggaa aacntnnaat ncttccggct 180
cgtatgttgt gtggaattgt nagcggataa caattcacac aggnancagc tataaccatg 240
attnnnccaa gntcgaaatt aaccntnact aaaggggaca aaagtngggg ctccacg
<210> 336
<211> 386
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (50)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (128)
<223> n equals a,t,g, or c
<221> misc feature
<222> (148)
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (185)
<223> n equals a,t,g, or c
<221> misc feature
<222> (187)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (200)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (204)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (244)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (251)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (261)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (265)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (272)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (275)
<223> n equals a,t,g, or c
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<220>
<221> misc feature
<222> (286)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (302)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (304)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (314)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (315)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (322)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (328)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (337)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (344)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (346)
<223> n equals a,t,g, or c
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277

PCT/US00/05881

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<220>
 <221> misc feature
 <222> (359)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (363)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (365)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (380)
 <223> n equals a,t,g, or c
 <400> 336
 gatgggcagc gactacatcc gtgaggtgaa tgtggtgaag tctgcccgtn tcggttattc 60
 caaaatgctg ctgggtgttt atgcctactt tatagagcat aagcagcgca acacccttat 120
 ctggttgncg acggatggtg atgcccgnga actttatgaa aaacccacgt tgagcccgac 180
 tattngngat attccgtcgn tgcntggggc tggccccgtg gtatggcaaa aaagcaccgg 240
 gttnaacaag ntcaaccatg naagngtttc anctnaatgg gggggncccc gtaacccaat 300
 tngncctata agtnnatggg antttaanaa ttcaatnggc cctngntttt aaatggtgng 360
 tgntnggcct tttttttttn gtttgt
 <210> 337
 <211> 506
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc feature
 <222> (13)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (307)
 <223> n equals a,t,g, or c
 <220>
<221> misc feature
 <222> (340)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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WO 00/55173

278

PCT/US00/05881

```
<222> (360)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (404)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (412)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (414)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (437)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (439)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (469)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (470)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (471)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (472)
<223> n equals a,t,g, or c
<221> misc feature
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<222> (481)

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<223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (483)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (501)
  <223> n equals a,t,g, or c
  <400> 337
  aattcggcag agnattgaca tcaggaagga cctctatgct aacaatgtcc tatcaggggg 60
  caccactatg taccctggca ttgccgaccg aatgcagaag gagatcacgg ccctagcacc 120
  cagcaccatg aagatcaaga tcattgcccc tccggaggcg caaatactct gtctggatcg 180
  gtggctccat cctggcctct ctgtccacct tccagcagat gtggatcagc aaacagggaa 240
  tacggtgaag ccgggccttc cattgtccac cgcaaatgct ttcttaaaac acttttcctg 300
  gttcctnttc tgtcttttag gcacacaact gtggaatgtn cctgtgggaa tttatggccn 360
  tttcagtttc tttttccaaa tcattcctag ggccaaagtt ttgnattggt tnanccatgg 420
  ggttttttta aataaantnt ggaaataggg ttaattggtt aaaaaaaann nnaaaaaaaa 480
  ntntggggg gggggcccg ntaccc
  <210> 338
  <211> 623
  <212> DNA
  <213> Homo sapiens
* <220>
  <221> misc feature
  <222> (441)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (508)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (509)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (513)
  <223> n equals a,t,g, or c
 <220>
  <221> misc feature
 <222> (537)
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (565)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (597)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (599)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (612)
<223> n equals a,t,g, or c
<400> 338
gcggaacttg ctactaccag caccatgccc taccaatatc cagcactgac cccggagcag 60
aaqaaqqaqc tqtctqacat cqctcaccqc atcqtqqcac ctggcaagqq catcctggct 120
gcagatgagt ccactgggag cattgccaag cggctgcagt ccattggcac cgagaacacc 180
gaggagaacc ggcgcttcta ccgccagctg ctgctgacag ctgacgaccg cgtgaacccc 240
tgcattgggg gtgtcatcct cttccatgag acactctacc agaaggcgga tgatgggcgt 300
cccttccccc aagttatcaa atccaaggc ggtgttgtgg gcatcaaggt agacaagggc 360
gtggtccccc tggcagggac aaatggcgag actaccaccc aagggttgga tgggctgtct 420
gagcgctgtg cccagtacaa ngaaggacgg agctgacttc ggccaagtgg cgttgtgtgc 480
ttaagaatgg gggaacacac cccctcannc ctnggcatca tggaaaatgc caattgntct 540
ggccccgtat gccagtatct ggcancagaa tgcattgggc cattcgggga gtctgananc 600
tcctgatggg ancatgactt gaa
                                                                   623
<210> 339
<211> 344
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (88)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (157)
<223> n equals a,t,g, or c
<220>
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<221> misc feature
<222> (171)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (210)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (298)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (317)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (330)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (343)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (344)
<223> n equals a,t,g, or c
<400> 339
tcgacccacg cgtccgcttc aacatgattt gtcacaatct tatcaataat cattactctg 60
ttttttatat ttcaactaaa agtatcanaa tatagctttc cagaaaaaccc cgaaccaaag 120
tcactgacta catcaaagtc tactacacct tggaganaac aaatgaacga naatctattt 180
tectcattca ttaccccaac aataataggn etecetateg taattattat cactatgttt 240
ccaagcatta tattcccatc acctacccga ctaatcaata atcgactcat ctccattnca 300
acaatggatt agtgcantga acatgcaaan gcaaggatta tcnn
                                                                   344
<210> 340
<211> 345
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (6)
<223> n equals a,t,g, or c
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<220>
<221> misc feature
<222> (13)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (31)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (88)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (90)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (128)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (135)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (138)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (146)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (153)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (172)
<223> n equals a,t,g, or c
```

PCT/US00/05881

WO 00/55173

```
<220>
<221> misc feature
<222> (173)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (296)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (313)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (339)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (343)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (345)
<223> n equals a,t,g, or c
<400> 340
agacangete tantacgaet caetataggg naaagetggt acgeetgeag gtaceggtee 60
ggaattcccg ggtcgaccca cgcgtccngn aggaggggac agctgcgggc gcggggaggg 120
ggcgccgngc cgcgnggngc catggnggac agnagagccg ggagtccgag anncgggccc 180
gcagcccgag atgtcgccgc catggcttcg ccgcagctct gccgcgcgct ggtgtcggcg 240
caatgggtgg cggaagcgct gcgggccccg cgcgctgggg cagcctctgc agctgntagg 300
                                                                   345
acgcctcctg gtnacctggc cggaagctgg ggggcgcgna cgncn
<210> 341
<211> 170
<212> DNA
<213> Homo sapiens
<220>
<221> misc, feature
<222> (20)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (23)
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (43)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (86)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (160)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (163)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (164)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (170)
<223> n equals a,t,g, or c
<400> 341
acceaegegt eegeceaegn tenegaetag ttetagateg egnaeggeeg etetagagga 60
tccaagctta cttggacatg catgcnacgt catagctctt ctatagtgtc acctaaattc 120
aattcactgg ccgtcgtttt acaacgtcgt gactgggaan atnntaaaan
<210> 342
<211> 387
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (238)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (273)
<223> n equals a,t,g, or c
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WO 00/55173

285

PCT/US00/05881

```
<220>
<221> misc feature
<222> (328)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (337)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (351)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (366)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (384)
<223> n equals a,t,g, or c
<400> 342
aatgacttgg ttgagtactc accagtcaca gaaaagcatc ttacggatgg catgacagta 60
agagaattat gcagtgctgc cataaccatg agtgataaca ctgcggccaa cttacttctg 120
acaacgatcg gaggaccgaa ggagctaacc gcttttttgc acaacatggg ggatcatgta 180
actcgccttg atcgttggga accggagctg aatgaagcca taccaaacga cgagcgtnac 240
accacgatgc ctgtagcaat ggcaacaacg ttngcaaact attaactggc ggactactta 300
ctctagcttc ccggcaacaa tttatagnct tggtggnggc gggtaaagtt ncaaggccca 360
tttttnggtt tggccttccg gttngtt
                                                                   387
<210> 343
<211> 186
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (26)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (64)
<223> n equals a,t,g, or c
<220>
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WO 00/55173

286

PCT/US00/05881

```
<221> misc feature
<222> (71)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (109)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (152)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (153)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (160)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (183)
<223> n equals a,t,g, or c
<400> 343
gctgcaggaa attaacagag tctacnagga aatgtacaag actgatctgg agaaagacat 60
tatntcggac ncatctggtg acttccgcaa gctgatggtt gccctggcna aaggttaaaa 120
aacagaagaa tggtccgtcc ttgaatatga anngaatgan ccacatgccc ggatttcctt 180
ganccc
<210> 344
<211> 611
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (8)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (11)
<223> n equals a,t,g, or c
<220>
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<221> misc feature
<222> (285)
<223> n equals a,t,g, or c
<400> 344
tgcaaggnga nactacceté actaaaggga acaaaagetg gagetecace geggtgegge 60
cgctctagaa ctagtggatc ccccgggctg caggaattcg gcacgagctg cgttgggctc 120
cgggaagccg ttcgggctgg ggctgtcggc cgcggggcgg aggcactcgc gcgggggatg 180
geocactgcg tgacettggt teagetgtee attteetgtg accateteat tgacaaggae 240
atcggctcca agtctgaccc actctgcgtc cttttacagg atgtnggagg gggcagctgg 300
gctgagcttg gccggactga acgggtgcgg aactgctcaa gccctgagtt ctccaagact 360
ctacagcttg agtaccgctt tgagacagtc cagaagctac gctttggaat ctatgacata 420
gacaacaaga cgccagagct gagggatgat gacttcctag ggggtgctga gtgttcccta 480
ggacagattg tgtccagcca ggtactgact ctccccttga tgctgaagct ggaaaacctg 540
ctgggcgggg gaccatcacg gtctcagctc aggaattaaa ggacaatcgt gtagtaacca 600
tggaggtaga g
                                                                   611
<210> 345
<211> 344
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (289)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (296)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (329)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (331)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (342)
<223> n equals a,t,g, or c
<400> 345
tttccttcta cagtattcct gaatttgacg aatggaaaaa acatatagaa aaccagaaag 60
cctggaaaat aaagtactat aaaggattgg gtactagtac agctaaagaa gcaaaggaat 120
attttgctga tatggaaagg catcgcatct tgtttagata tgctggtcct gaagatgatg 180
```

288

```
ctgccattac cttggcattt agtaagaaga agattgatga cagaaaagaa tggttaacaa 240
attttatgga agaccggaga cagcgtagct acatggctta ccagaggant gattcnctct 300
caactcagac atgaaagatc tataccacnc ntgttgatgg cntt
<210> 346
<211> 506
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (392)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (452)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (453)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (472)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (480)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (495)
<223> n equals a,t,g, or c
<400> 346
ggaaaagccc aaggaaaaag caaagaatag caaaaaaaaag ggggccaaga aggaagtggt 60
tgggattggt cttcttttt cttcagtgag ttttttcccc aacaggttct gatggtcctt 120
tggctaccag caaaccagtc cctgcagaaa agtcaggtct tccagtgggt cctgagaacg 180
gagtagaact ttccaaagag gagctgatcc gcaggaagcg cgaggagttc attcagaagc 240
atgggagggg tatggagaag tccaacaagt ccacgaagtc agatgctcca aaggagaagg 300
gcaaaaaagc accccgggtg tgggaactgg gtggctgtgc taacaaagaa atgttggatt 360
acagtacttc caccaccaat ggaacccctg angcttgcct tgtctgagga cattaacctt 420
gattccaagg gactgggtct ggggggcact tnnggatctg gactgcacac tntgatgacn 480
aagggcttgt taaantttcc aaacta
                                                                   506
```

<210> 347

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<211> 444
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (289)
<223> n equals a,t,g, or c
<400> 347
cggaagggag accatgttcc gagcggcggc tccggggcag ctccggcggg cggcctcatt 60
gctacgattt cagagtaccc tggtaatagc tgagcatgca aatgattccc tagcacccat 120
tactttaaat accattactg cagccacacg ccttggaggt gaagtgtcct gcttagtagc 180
tggaaccaaa tgtgacaagg tggcacaaga tctctgtaaa gtagcaggca tagcaaaagt 240
tctggtggct cagcatgatg tgtacaaagg cctacttcca gaggaactna caccattgat 300
tttggcaact cagaagcagt tcaattacac acacatctgt gctggagcat ctgccttcgg 360
aaagaacctt ttgcccagag tagcagccaa acttgaggtt gccccgattt ctgacatcat 420
tgcaatcaag tcacctgaca catt
<210> 348
<211> 358
<212> DNA
<213> Homo sapiens
<220>
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tgcagcttca ttttgagtgc agacttccct gctttggttg tgaaaggcca gtggtcttgc 180
agctggnaaa aggggtgatt gttgcaaaga gcaaagaaga ggcctgcaag ctgtacaaga 240
gatcatgcag gtaggctggg tcttctggaa aaatttactn ttgtattcat actgnatgaa 300
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291

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WO 00/55173 PCT/US00/05881

292

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ggtgaggete agattgegte cateageeag agtgtggege gtttetnete tgeateegge 180
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geggggeece agetgggaec cetteegega etggtaeceg catageegec tettegaeca 120
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ý

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ggccttcggg ctgccccggc tgccggagga gtggtcgcag tggttaggcn gcagcagctg 180
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295

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ggtccctgtg gtactcagag tatcgcttcc ctgaagaact cactcagacc ttcatgagct 180
gcaatctcat cactggaatg ttccagcgac tggacaagct gaggaagaat gccttcgcca 240
gtgtcatcct ttttggaacc aacaatagca gctccatttc tggagtctgg gtcttnccng 300
gccaggagct tgcctttccg ctgagtccag attggcaagt ggactacgaa gtcatacaca 360
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298

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gaaccccgtg gaacagaggc agcgcatcat cggagggcaa aaagccangg ggatagtggg 180
ggcgtttttg cagtaaggga cccgaacact gatcgctggg tggccacggg catcgtgtnc 240
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tggccttgga tcaagnnaga cctngganca ggaggactnc cgccccanca ttcactaggt 360
tccnaatcca gngagcagtt tcgcanaaan canccanaca cancttcccc ctntttngnn 420
acconneagn gtetetnttn anatneetne tngeaennna neceaeaace ecceenence 480
cccncccc cccccncnc cc
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aaagaatccg cataccagga agggcgctgg gaaacactgc cctttcagcg ggccatcatg 180
aatgcgaatg ggcagcgact acatccgtga gtggaatgtg gtgaagtttg cccgtntcgg 240
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ccttatttgg tttccncagg atggtggatg cccgagaant ttttggaaaa cccacgttgn 360
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304

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taaatttttt gctgacctgc tggattacat caaaggactg antagnaaat agtgnataga 180
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<221> misc feature

305

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gtttgaggta cataagaaaa atgtaagggg tgaattcact tattatgaaa tacaagataa 180
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gagatetgta atteatagte acateaaggt cateaagace aggaaaaaca agaaagacat 360
actcaatcct gattcaagta tggaaacttc accagacttt ttcttctaaa atctggatgt 420
cattgacgat aatgtttatg gagataaggt ctaagtgcct aaaaaaatgt acatatacct 480
ggttgaaata caacactata catacacac ancatatata ctagcttgtt aatcctatgg 540
aaatggggta tntggagnnc ttttttaatt tttcatagnt ttttttnat aanaatggca 600
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<212> DNA
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<213> Homo sapiens

306

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cgaatcccat ctcngcaagg agctgctgga aaaagtcgag ctgacggagg ataacgccag 120
cagactggag gagttttcga aagantggaa ggatgccagt nataagtgga atgccatgtg 180
ggctntcaaa attnagcaga ccaaagacgn caaacgantt ttattctgct atttagtagt 240
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248
aagatcag
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atctggaggc gacggggctg tatcaggtgc cgttgtcagc ggcacagccg ggcgatgtgc 120
tgctgtgctg ntttggntca tcanngncg
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<212> DNA
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<222> (93)
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<222> (322)
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<223> n equals a,t,g, or c
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tgctctggtt ctcatgacgg cagatgcagc gangaggctc aatgttacac cactggcaag 120
aatagtagca tttgctgacg ctgctgtaga acctattgat tttccaattg ctcctgtata 180
tgctgcatct atggtnctta aagatgtggg attgaaaaaa gaagatattg caatgtggga 240
agtaaatgga agcctttagt ctggttgtac tagcaaacat taaaaatgtt ggagattgga 300
tccccaaaaa gtgaatatnc anggnaggag ctgtttcncn ggggacatcc ca
                                                                  352
<210> 365
<211> 272
<212> DNA
<213> Homo sapiens
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<223> n equals a,t,g, or c
<220>
<221> misc feature
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310

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<220>
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<222> (226)
<223> n equals a,t,g, or c
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311

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PCT/US00/05881

WO 00/55173

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<400> 366
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cccgggtcga cccacgcgtc cgcttctctg cctagaaggg ataatattat cactcttcgt 120
tataataaca atcaccatct taattaacca ccttacatta gccagcataa cccctatcat 180
cettettgta tntgcageet gtgaagenne aetggggett atecetttta gttatnatet 240
                                                                   254
caantacata cgga
<210> 367
<211> 185
<212> DNA
<213> Homo sapiens
<400> 367
gattggattc gacaacaaaa aagacctgct tatctcggtg ggcgatttgg ttgatcgtgg 60
tgcagagaac gttgaatgcc tggaattaat cacattcccc tggttcagag ctgtacgtgg 120
aaaccatgag caaatgatga ttgatggctt atcagagcgt ggaaacgtta atcactggct 180
gctta
                                                                   185
<210> 368
<211> 458
<212> DNA
<213> Homo sapiens
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<220>
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (6)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (232)
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<222> (316)
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<222> (340)
<223> n equals a,t,g, or c
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<222> (395)
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<223> n equals a,t,g, or c
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<222> (404)
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<220>
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<221> misc feature
<222> (415)
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<221> misc feature
<222> (433)
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ccggagtgag ccttgaacgc ctggacctgg acctcacagc tgacagccag ccacccgtct 120
tcaaggtctt cccaggcagt accactgagg actacaacct tattgttatn gaacgtggcg 180
ctgccgctgc acnaccggcc agccagggac tgcgcctgca ggaacccctg gngccccacc 240
cctggntggn atggccattg tcaaggagga ggagacggag gctgccattg gagccctcc 300
tactgccact gagggncctg agaccaaacc tgtgcttatn gctcttgagg agggtcctgg 360
tgctgagggt tcccggctgg actcactagt ggcanaacna ctcnggctgg aagtngtagc 420
                                                                   458
tctgagggac tcngccccag tgttggccgg gacctgat
<210> 369
<211> 288
<212> DNA
<213> Homo sapiens
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<220>
<221> misc feature
<222> (17)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (47)
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<220>
<221> misc feature
<222> (56)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (71)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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WO 00/55173

315

PCT/US00/05881

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<222> (114)
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<222> (225)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (239)
<223> n equals a,t,g, or c
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gegetggage tgetngngea etgeggegtg tgeagagage geetgenace egaganggag 60
coccedetge ngccetgttt geacteggee tgtagtgeet gentagggee egengeeeeg 120
ccgccgccaa cagctcgggg gacggcggg cggcgggcga cggcaccgtg gtggactgtc 180
ccgtgtgcaa gcaacagtgc ttctccaaag acatcgtgga gaatnatttc atgcgtgana 240
gtggcagcaa ggctgccacc gacgcccagg atgcgaacca gtgctgca
<210> 370
<211> 292
<212> DNA
<213> Homo sapiens
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<222> (47)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (53)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (60)
<223> n equals a,t,g, or c
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<222> (61)
<223> n equals a,t,g, or c
<220>
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<222> (141)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (263)
<223> n equals a,t,g, or c
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ntecteegee geegeggact eeggeagett tategeeaga ntecetgaac tetegettte 120
tttttaatcc cctgcatcgg ntcaccggcg tgccccacca tgtcagacgc agccgtagac 180
accageteeg aaateaceae caaggaetta aaggagaaga aggaagtttt ggaaagagge 240
agaaaatgga agagacggcc ctncttaacg gggaatgcta atttagggaa at
<210> 371
<211> 477
<212> DNA
<213> Homo sapiens
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<222> (276)
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<221> misc feature
<222> (313)
<223> n equals a,t,g, or c
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<222> (342)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (374)
<223> n equals a,t,g, or c
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<222> (427)
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<222> (434)
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<220>
<221> misc feature
<222> (447)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (448)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (451)
<223> n equals a,t,g, or c
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tggttccaag cataaaagaa cggacagatc aattttatgt tgtttacgaa aaggagaatc 120
tggccagtca tggcaagggt taacaaaaga aagggcaaag cttaattggc ttagtgtcga 180
cttcaataat tgggaaagac tgggaagatg attcaaatga agacatgtct aattttgaat 240
cgtttctctg aggattcaca agacagtgat gatggnaaaa atgccagatc tgggagtaag 300
ggaatattgt contracetg ggtttttgag gaaaggaaaa tnaactttct etggcaaggt 360
tttccataat ttgngaggaa ttccccgagt ttgttagcnc ctaaagggcn gttatgctcg 420
tatttgnccc actntaaccc ctttttnnca nccggtttgt ttttttaaaa gggcttc
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<211> 443
<212> DNA
<213> Homo sapiens
<220>
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WO 00/55173

318

PCT/US00/05881

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<222> (74)
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<223> n equals a,t,g, or c
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<221> misc feature
<222> (222)
<223> n equals a,t,g, or c
<220>
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<221> misc feature

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<222> (314)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (329)
<223> n equals a,t,g, or c
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<222> (335)
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<222> (373)
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<221> misc feature
<222> (407)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (411)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (426)
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agaaganatc cttnacccct gtaggaatgt ttttgaaact aaatttnatg aacgtnaaat 120
ttnccagtgg ttattatgaa cttccttgtc gaagttgaaa ggtgaacaac nctnatattg 180
caaataccgt agagetteag agtgeaagat tetecaetgn angttgggea tteacaaatg 240
ttggatcttt cccaccgtgg gatgaagggt tcagaggcat tgcacccaaa atnacccggg 300
tgaacatacc cagnccaaag cccaggggna cattnatcgn ggacaggccc nccagaattt 360
ggcntgttct ttnccagttg gtaggtgtgg aacttggggt tgaattnatt ncttaaccga 420
                                                                   443
attttnccgn ttccttaacc gag
<210> 373
<211> 464
<212> DNA
<213> Homo sapiens
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<222> (20)
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<220>
<221> misc feature
<222> (235)
<223> n equals a,t,g, or c
<400> 373
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gagacttggg gatggaaccg cacagagccg cgggcccttt gcagctgcga ttttcgccct 120
acgttttcaa cggaggtact atactggcaa ttgctggaga agattttgca attgttgctt 180
ctgatactcg attgagtgaa gggttttcaa ttcatacgcg ggatagcccc aaatnttaca 240
aattaacaga caaaacagtc attggatgca gcggttttca tggagactgt cttacgctga 300
caaagattat tgaagcaaga ctaaagatgt ataagcattc caataataag gccatgacta 360
cgggggcaat tgctgcaatg ctgtctacaa tcctgtattc aaggcgcttc tttccatact 420
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<210> 374
<211> 369
<212> DNA
<213> Homo sapiens
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<222> (216)
<223> n equals a,t,g, or c
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321

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<222> (218)
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<220>
<221> misc feature
<222> (219)
<223> n equals a,t,g, or c
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<222> (221)
<223> n equals a,t,g, or c
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<222> (332)
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<222> (357)
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<222> (363)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (369)
<223> n equals a,t,g, or c
<400> 374
ggcacagcct ctacagccat gtattcggct cctggcagag acttggggat ggaaccgcac 60
agageegegg geeetttgea getgegattt tegeeetaeg tttteaaegg aggtaetata 120
ctggcaattg ctggagaaga ttttgcaatt gttgcttctg atactcgatt gagtgaaggg 180
ttttcaattc atacgcggga tagccccaaa tgttgncnna ntaacagaca aaacagtcat 240
tggatgcagc ggttttcatg gagactgtct tacgctgaca aagattattg aagcaagact 300
aaagatgtat aagcattcca ataataaggc cntgactacg gggggcaatg ctggcangcn 360
gtnctacan
                                                                   369
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<210> 375

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<211> 313
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<213> Homo sapiens
<220>
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<222> (32)
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<220>
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<222> (249)
<223> n equals a,t,g, or c
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<222> (259)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (268)
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<220>
<221> misc feature
<222> (293)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (308)
<223> n equals a,t,g, or c
<400> 375
taccetteat cactaaagge egeetgtgeg tntttttta egggattttt ttatgtegat 60
gtacacaacc gcccaactgc tggcggcaaa tgagcagaaa tttaagtttg atccgctgtt 120
tetgegtete ttttteegtg agagetatee etteaceaeg gaggaaagte tateteteae 180
aaattccggg actggtaaac atggcgctgt acgtttcgcc gattgtttcc ggtgaaggtt 240
atcccgttnc cctggcggnt tccacctntg aatttaaggc cgggataatg tcnaagcccg 300
aagcatgnaa gtg
                                                                   313
<210> 376
<211> 375
<212> DNA
<213> Homo sapiens
<400> 376
cgggttccgg tgaccacgaa ggcggcaaag gcgacggaat ggaggaggtg cctcacgact 60
gtccaggggc cgacagcgcc caggcgggca gaggggcttc atgtcaggga tgccccaacc 120
agcggctgtg cgcttctgga gcgggggcca ctccggacac ggctatagag gaaatcaaag 180
```

```
agaaaatgaa gactgtaaaa cacaaaatct tggtattgtc tgggaaaggc ggtgttggga 240
aaagcacatt cagcgcccac cttgcccatg gcctagcaga ggatgaaaac acacagattg 300
ctcttctaga catcgatata tgtgggccat cgattcccaa gataatggga ttggaaggag 360
agcaggttca ccaga
<210> 377
<211> 434
<212> DNA
<213> Homo sapiens
<220>
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<222> (17)
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<222> (64)
<223> n equals a,t,g, or c
<220>
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<221> misc feature
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<223> n equals a,t,g, or c
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<222> (163)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<220>
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<221> misc feature
<222> (228)
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<222> (235)
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<220>
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<222> (263)
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<220>
<221> misc feature
<222> (264)
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<220>
<221> misc feature
<222> (265)
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326

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<220>
<221> misc feature
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<220>
<221> misc feature
<222> (279)
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<220>
<221> misc feature
<222> (301)
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<220>
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<222> (320)
<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
<220>
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<222> (351)
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<220>
<221> misc feature
<222> (370)
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<220>
<221> misc feature
<222> (381)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (409)
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<400> 377
ggcacgagng tggctcnagg gngtcacctt cnntgttacc accgttnaca ccaaaagncg 60
gacngagana gtncagaagc tgtgcccagg ggggcagntc ccattcctgc tntatngnac 120
tgaagtgcac acagacacca acaagnttgc ngaatttctg nangcagtgc tgtgccctcc 180
caggtacccc aanctggcag ctctgaaccc tnantccaac acagctgngc tgganatatt 240
tgncaaattn tctgcctaca tnnnnanttc aaacccagna ctcaatgaca atctggagaa 300
nggactectg aaageeetgn aegttttagn caattantta acateeece neteagaaga 360
agtggatgan accagtgctg nagtgaaggt gtctctcaga agaagtttnt ggatagcacg 420
agctcaccct gggg
                                                                   434
<210> 378
<211> 506
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (133)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (294)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (367)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (376)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (386)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (389)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (421)
<223> n equals a,t,g, or c
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PCT/US00/05881

WO 00/55173

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<221> misc feature
<222> (440)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (443)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (472)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (479)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (492)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (493)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (496)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (503)
<223> n equals a,t,g, or c
<400> 378
aattttcact cccctcagaa cataacatag taaatggatt gaattatgaa gaatggtttt 60
tatgcgactt accgcagcaa aaataaaggg aaagataagc gctcaataaa cctgtctgtt 120
ttccttaatt ctntgctggc tgataatcat cacctgcagg ttggctccaa ttatttgtat 180
attcataaaa tcgatggaaa aacttttctc tttaccaaaa caaatgacaa gagtctggtt 240
cagaagataa atcgctctaa agcttcagtt gaagatatta agaacagcct cgtngatgac 300
ggaatcattg ggattcccat cttttttgtt tgttgaaggc gacaccattg gtttttgcca 360
gaactgnttt tcgggncggc cacatncgnt tttgacaggt ttttttaatc ggggaaggga 420
ntgtccttaa ggcgtggggn gcngttcagt tggggccctg ttggggggac cnccaaggng 480
                                                                   506
gtggttatgg cnnggntttc atnggc
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<210> 379
<211> 550
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (6)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (9)
<223> n equals a,t,g, or c
<400> 379
gacganacna acceteacta aagggaacaa aagetggage teeacegegg tgeggeeget 60
ctagaactag tggatccccc gggctgcagg aattcggcac gaggccatcc agactgagga 120
agaccoggaa acttaggggc cacgtgagcc acggccacgg ccgcataggc aagcaccgga 180
agcaccccgg cggccgcggt aatgctggtg gtctgcatca ccaccggatc aacttcgaca 240
aataccaccc aggctacttt gggaaagttg gtatgaagca ttaccactta aagaggaacc 300
agagettetg cecaactgte aacettgaca aattgtggac tttggteagt gaacagacac 360
gggtgaatgc tgctaaaaac aagactgggg ctgctcccat cattgatgtg gtgcgatcgg 420
gctactataa agttctggga aagggaaagc tcccaaagca gcctgtcatc gtgaaggcca 480
aattetteag cagaagaget gaggagaaga ttaagagtgt tgggggggee tgtgteetgg 540
tggcttgaag
<210> 380
<211> 573
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (4)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (6)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (10)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (160)
<223> n equals a,t,g, or c
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<400> 380
aagncnagan agccaaccet cactaaaggg aacaaaaget ggagetecae egeggtgegg 60
ccgctctaga actagtggat cccccgggct gcaggaattc ggcacgagcg caaagaaggg 120
tggcgagaag aaaaagggcc gttctgccat caacgaaggn taacccgaga atacaccatc 180
aacattcaca agegeateca tggagtggge tteaagaage gtgcaceteg ggcactcaaa 240
gagattcgga aatttgccat gaaggagatg ggaactccag atgtgcgcat tgacaccagg 300
ctcaacaaag ctgtctgggc caaaggaata aggaatgtgc cataccgaat ccgtgtgcgg 360
ctgtccagaa aacgtaatga ggatgaagat tcaccaaata agctatatac tttggttacc 420
tatgtacctg ttaccacttt caaaatttct gtgctaaaca gtgttacagt cgccaagagc 480
ccataaaggg agcctcctg gaagtggatg aggccttggg tctcggctct tcattgcttc 540
ctgagctgca gcagatgcct ttacaaccaa gct
                                                                   573
<210> 381
<211> 531
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (5)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (8)
<223> n equals a,t,g, or c
<400> 381
gcagnacnaa ccctcactaa agggaacaaa agctggagct ccaccgcggt gcggccgctc 60
tagaactagt ggatcccccg ggctgcagga attcggcacg aggcggcgtt ggcggcttgt 120
gcagcaatgg ccaagatcaa ggctcgagat cttcgcqqqa agaagaagga ggagctgctg 180
aaacagctgg acgacctgaa ggtggagctg teccagetge gegtegeeaa agtgacagge 240
ggtgcggcct ccaagctctc taagatccga gtcgtccgga aatccattgc ccgtgttctc 300
acagttatta accagactca gaaagaaaac ctcaggaaat tctacaaggg caagaagtac 360
aagcccctgg acctgcggcc taagaagaca cgtgccatgc gccgccggct caacaagcac 420
gaggagaacc tgaagaccaa gaagcagcag cggaaggagc ggctgtaccc gctgcggaag 480
tacgcggtca aggcctgagg ggcgcattgt caataaagca cagtggctga g
                                                                   531
<210> 382
<211> 300
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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331

PCT/US00/05881

WO 00/55173

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<222> (5)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (40)
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<220>
<221> misc feature
<222> (43)
<223> n equals a,t,g, or c
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<222> (59)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (171)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (172)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (175)
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<220>
<221> misc feature
<222> (179)
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<220>
<221> misc feature
<222> (184)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (190)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (203)
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<220>
<221> misc feature
<222> (271)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (292)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (293)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (300)
<223> n equals a,t,g, or c
<400> 382
ngggngtacc acaaatataa ggcaaagagg aactgctggn cangagtacg gggtgtggnc 60
atgaatcctg tggagcatcc ttttggaggt ggcaaccacc agcacatcgg caagcctcc 120
accateegea gagatgeece tgetggeege aaagtgggte teattgetge nngenggant 180
ggangteten ggggaaccaa gantgtgcag gagaaagaga actagtgctg agggcetcaa 240
taaagtttgt gtttatgcca aaaaaaaaaa naaaaaaaaa aaaaaaaag annaaagagn 300
<210> 383
<211> 475
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (36)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (146)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (363)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<222> (367)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (401)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (404)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (415)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (450)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (451)
<223> n equals a,t,g, or c
<400> 383
atgacgccgg tgcagcgggg gggcccgggg gcctgngtgg ccctgggatg gggaaccgcg 60
gtggcttccg cgaggtttcg gcagtggcat ccggggccgg ggtcgcggcc gtggacgggg 120
ccggggccga ggccgcggac tcgcgnaggc aaggccgagg ataaggagtg gatgcccgtc 180
accaagttgg gccgcttggt caaggacatg aagatcaagt ccctggagga gatctatctc 240
ttctccctgc ccattaagga atcagagatc attgattctt cctgggggct ctctcaagga 300
tgagttttga agatatgcca tgcagaagca gaccctgccg gccacgcacc agttcaagca 360
ttnttgnaac gggattaaat gccactcgtt tggtttaatg nccnagagtg gcacncatcc 420
tgggcaaaac tggcaaattt caagtccttn naagtatggg gaaaatggaa cccaa
<210> 384
<211> 127
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (5)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (8)
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334

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<220>
<221> misc feature
<222> (31)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (62)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (71)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (103)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (124)
<223> n equals a,t,g, or c
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caatntgnag accagattcc taaggctgca naggggacag tgggatctat tttaggaccg 60
angagattaa ncagagacac aggcaattgt atgtcagcag ctngatttaa cccacctaaa 120
aggngcg
                                                                    127
<210> 385
<211> 317
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (30)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (151)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (187)
<223> n equals a,t,g, or c
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<222> (203)
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<222> (231)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (264)
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<222> (308)
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<220>
<221> misc feature
<222> (311)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (316)
<223> n equals a,t,g, or c
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ggcacgaggg atgtgcgacg tgtgcctggn gtagccccga ctcttgtacg gtcggcatct 60
gagaccagtg agaaacgccc cttcatgtgt gcttacccag gctgcaataa gagatatttt 120
aagctgtccc acttacagat gcacagcagg naagcacact ggtgagaaac cataccagtg 180
tgacttnaag gactgtgaac gangttttct cgttcagacc agctcaaaag ncaccaaagg 240
aggacataca ggtgtgaacc attnccagtg taaaattgtt cagcgaaatt ctcccggtcc 300
gaccaacnga ngaccna
                                                                   317
<210> 386
<211> 433
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (295)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<222> (311)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (359)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (385)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (405)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (407)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (427)
<223> n equals a,t,g, or c
<400> 386
tttcaaaagc tatttaggtg acactataga aggtagcctg caggttaccg gtccggaaat 60
tcccgggtcg acccacgcgt ccgccgagag ccttagccga cggaaactgg acactggaac 120
cggcagcgcc atgagactcc tcccccgctt gctgctgctt ctcttactcg tgttccctgc 180
cactgtcttg ttccgaggcg gccccagagg cttgttagca gtggcacaag atcttacaga 240
ggatgaagaa acagtagaag attccataat tgaggatgaa gatgatgaag ccgangtaga 300
agaagatgaa nccacagatt ttgtagaaga taaagaggaa gaagatgtgt ctggtgaanc 360
tgaaacttta ccgagtgcag atacnactat actgttttta aaggngnaga ttttccgcca 420
ataacantgt gaa
<210> 387
<211> 407
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (315)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (356)
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (359)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (373)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (376)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (407)
<223> n equals a,t,g, or c
<400> 387
atttgaagca aacaggcagc gcgcgacaat ggcggtcgct cgtgcagctt tggggccatt 60
ggtgacgggt ctgtacgacg tgcaggcttt caagtttggg gacttcgtgc tgaagagcgg 120
gettteetee eccatetaea tegatetgeg gggeategtg tetegaeege gtettetgag 180
tcaggttgca gatattttat tccaaactgc ccaaaatgca ggcatcagtt ttgacaccgt 240
gtgtggagtg ccttatacag ctttgccatt ggctacagtt atctgttcaa ccaatcaaat 300
tccaatgctt attanaagga aagaaacaaa ggattatgga actaagcgtc ttgtanaang 360
aatattaatc canganaaac tgtttaatca ttgaaatgtt gtcccan
<210> 388
<211> 244
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (215)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (221)
<223> n equals a,t,g, or c
<400> 388
ttcgttcatc tatcggatcg ccacactcac aacaatgagt ggcagatata gcctggtggt 60
tcaggcggcg catttttatt gctgtgttgc gctgtaattc ttctatttct gatgctgaat 120
caatgatgtc tgccatcttt cattaatccc tgaactgttg gttaatacgc ttgagggtga 180
atgcgaataa taaaaaagga gcctgtagct ccctnatgat nttgcttttc atgttcatcg 240
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338

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244
ttcc
<210> 389
<211> 239
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (21)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (55)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (64)
<223> n equals a,t,g, or c
<220>
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<222> (71)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (116)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (128)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (163)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (185)
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<223> n equals a,t,g, or c

339

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<220>
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<222> (196)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (202)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (205)
<223> n equals a,t,g, or c
<400> 389
nggactggcg tcagacgtcg nattccggcg cccacggtcg gcttaaaccc tggtncaatc 60
ctgncgcccg ncgtgatgcc agggaagaca gggcgacctg gaagtccaac tacttnctta 120
agatcatnca acgtattggg atgattatcc taaaatgggt tcnattggtg ggtagcgagt 180
acganatggt ggggcntcct anagntagta tggcgagcta gagtcccggc taatgttcc 239
<210> 390
<211> 382
<212> DNA
<213> Homo sapiens
<220>
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (54)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (69)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (103)
<223> n equals a,t,g, or c
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340

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<222> (108)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (126)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (169)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (192)
<223> n equals a,t,g, or c
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<222> (217)
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<222> (219)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (221)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (235)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (342)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (345)
<223> n equals a,t,g, or c
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<222> (346)
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<220>
<221> misc feature
<222> (360)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (374)
<223> n equals a,t,g, or c
<400> 390
tcaangcgca attaaccctc actaaaggga acaaaagctg ggaacgatct ggtntctctg 60
cgcgctgcnc gcacactgag gccgcccggg acaaagcccg gnntcggngc gacctttggt 120
cccggnctca gtgagcgagc gagcgcgcag agagggagtg gccaacttna tcactagggg 180
ttccttgtag tnaatgatta accegccatg ctacttngnc nacgtagcca tgggntacca 240
agetegaget etetagaete gaegegegta atacgaetea etatagggeg aatttgaget 300
ccaccgcggt tgcggccgct ctactagagt cgacctcatg gnttnncccc gaaacccgcn 360
aacacccgct gacncgccct ta
                                                                   382
<210> 391
<211> 375
<212> DNA
<213> Homo sapiens
<220>
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<222> (6)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (7)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (48)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (70)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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342

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<222> (104)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (117)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (138)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (146)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (159)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (208)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (223)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (261)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (269)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (275)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<222> (279)

343

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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (299)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (351)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (366)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (370)
<223> n equals a,t,g, or c
<400> 391
tqcaannqaa tacacactaa qqacaaqtqq actcacqqtq cqccctcnga ctaqtqqtcc 60
cgggtgcagn tgccagggtg gcctgagcga tctacggatg ggcngtatgg agtggangag 120
acgagatgcg ggtgttanag cagggnctga ccggagtgnc acacatgagt gtcaggtgca 180
ggtagtccga gtcggcgaca tgagcctnga gtagagtcat cantcgatga gatctggagg 240
caactggcga gcaagaccgt ntggtgcant gtcantcang ctgttgcagg tgagagcant 300
gcactcgtcg agtggcgaga cagatcaatc tctgttagcg ggtggaggtt ncactcgcgc 360
tgtggnggtn cactg
<210> 392
<211> 121
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (3)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (9)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (13)
<223> n equals a,t,g, or c
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344

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<220>
<221> misc feature
<222> (56)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (67)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (113)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (118)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (120)
<223> n equals a,t,g, or c
<400> 392
gantcatong agngtgtgga tttgagccgc cgcatttttt aaccctaaat ctcganatgc 60
atcgtgnttc ctgtccattg gactgtaagg tttatgtagg catcttggga acnatggnan 120
                                                                    121
а
<210> 393
<211> 83
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (65)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (66)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (70)
<223> n equals a,t,g, or c
<220>
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<221> misc feature
<222> (73)
<223> n equals a,t,g, or c
<400> 393
aaaanncccn ggngggggcc ccc
<210> 394
<211> 218
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (13)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (64)
<223> n equals a,t,g, or c
<400> 394
gtcggcgcag aangcgcccc gcacccccgc caggcgcatg tctgcacctc cgcttgccaa 60
aggneetegg teagegactg gatgetegee ateaaggtee agtggaagtt etteaagagg 120
aaaggcgccc ccgccccagg cttccgcgcc cagcgctcgc cacgctcagt gcccgtttta 180
ccaataaact gagcgacccc aaaaaaaaa aaaaaaag
<210> 395
<211> 83
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (11)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (13)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (83)
<223> n equals a,t,g, or c
<400> 395
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83
aaaaaaaaa aaaaaaaaa aan
<210> 396
<211> 70
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (69)
<223> n equals a,t,g, or c
<400> 396
aaaaaaana
<210> 397
<211> 140
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (50)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (57)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (74)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (93)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (113)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (114)
<223> n equals a,t,g, or c
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<220>
<221> misc feature
<222> (115)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (139)
<223> n equals a,t,g, or c
<400> 397
aatttgacca gagaacaaga ataacccggc ctcagcgccg ggttttcttn gcctcangat 60
cgcccccaaa acanataacc aattgtattt atngaaaaat aaatagatac aannnactaa 120
acatagcaat tcagatctnt
<210> 398
<211> 157
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (10)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (65)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (121)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (122)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (123)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (126)
<223> n equals a,t,g, or c
<220>
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348

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<221> misc feature
<222> (134)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (150)
<223> n equals a,t,g, or c
<400> 398
aattoggoan agotoaagoa gacggggoto aagggggtta catttaataa aaggatgaag 60
nnncengggg gggnececec ececetttn ececett
<210> 399
<211> 358
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (5)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (84)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (204)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (207)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (302)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (305)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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349

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<222> (308)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (331)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (341)
<223> n equals a,t,g, or c
<400> 399
ggcanagegg cagaggegge teccactete ggaacettgt cetgtttte ecceageteg 60
gcaagegeca tatgageetg gegnegecaa tagegaatee tgttgtggge tttttggeet 120
attoccgccc ctcagtcttg ccgggatggc accgcccgca taggacttcc agggttgggc 180
tgagtgggag ttcgactgct gggnctngta attctcgctt tgggggctgc tccttccagg 240
ctggggacac actggggccc gttgttcggt ctcccgtcct ccgacatctt gtctggaact 300
tnegnetnge agttteeata ggagttggag netgtgegge ntaattttgg tggaaaaa
<210> 400
<211> 399
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (15)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (27)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (33)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (70)
<223> n equals a,t,g, or c
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350

PCT/US00/05881

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<220>
<221> misc feature
<222> (83)
<223> n equals a,t,g, or c
<221> misc feature
<222> (115)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (117)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (169)
<223> n equals a,t,g, or c
<221> misc feature
<222> (171)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (213)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (216)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (218)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (239)
<223> n equals a,t,g, or c
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<220>

351

PCT/US00/05881

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<221> misc feature
<222> (245)
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<220>
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<222> (248)
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<222> (255)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (262)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (269)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (279)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (283)
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<220>
<221> misc feature
<222> (292)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (316)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (325)
<223> n equals a,t,g, or c
<220>
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<221> misc feature

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<222> (349)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (364)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (382)
<223> n equals a,t,g, or c
<400> 400
ttttttttt ttttnaaaag ggcacanata canttttacc gtttanacca aaccagaatc 60
aaaacccaan tcagagtatc canaaatcca agccaggtca aaaccaaaac gaaantntca 120
agcaatccaa atcaagtcaa aaacaaaaac caaagtgccg gtacaggcnt necgtgggtg 180
atcaggccac ccttccactc aaatggagtg ggnaantncc aaagactagt nttaccaant 240
ttcanatntc cggantccaa gngcctgtnc cttcccagng ttnagccgct gnattgatcc 300
tctgtggggg cctgcnaaac gccantctgg cgaggtgttc cactggggna attgcctacc 360
cggnagtgct ctcaggttct gngtccctca agctggcca
<210> 401
<211> 189
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (11)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (162)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (165)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (166)
<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c

WO 00/55173 PCT/US00/05881

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<220>
<221> misc feature
<222> (187)
<223> n equals a,t,g, or c
<400> 401
naattoggca nagcaaacca cacottotot ttottatgto tttttactac aaactacaag 60
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa anccnngggg ggggccccc 180
cccccntt
                                                            189
<210> 402
<211> 174
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (10)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (73)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (103)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (107)
<223> n equals a,t,g, or c
<220> '
<221> misc feature
<222> (130)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (132)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (146)
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<223> n equals a,t,g, or c

WO 00/55173 PCT/US00/05881

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<220>
<221> misc feature
<222> (149)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (167)
<223> n equals a,t,g, or c
<400> 402
aattcggcan agctgaggca ggagaatcgc ttgaattcgg gaggcagagc tgagatcaca 60
cctctgacac tcnagcctgg gtgacagagc gagactccgt ctnaggnaag gaaaaaaaaa 120
aaaaaaaaan cncggggggg gccccngtnc ccaattggcc ctatagnggg tcgt
<210> 403
<211> 263
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (5)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (231)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (236)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (242)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (252)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (260)
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355

<400> 403 ggcanagcca acccagcagt cottocctca gctgcctagg aggaagggac ccagctgggt 60 ctgggaccac aagggaggag actgcaccc actgcctctg ggccctggct gtgggcagag 120 gccaccgtgt gtgtcccgag taaccgtgcc gttgtcgtgt gatgccataa gcgtctgtgc 180 gtggagtccc caatgaaacc tgtggtcctg cctgggcaaa aaaaaaaaa naaaanaaaa 240 anaaagaaaa anaaaaaaan aaa <210> 404 <211> 478 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (159) <223> n equals a,t,g, or c <220> <221> misc feature <222> (259) <223> n equals a,t,g, or c <220> <221> misc feature <222> (427) <223> n equals a,t,g, or c <400> 404 tcgacccacg cgtccggggg ctgcagcatg ttgctgagga gtgaggaata gttgagcccc 60 aagteetgaa gaggeggee ageeaggetg acatetgtgt tteaagtggg getegeeatg 120 ccgggggttc ataggtcact ggctctccaa gtgccagang tgggcaggtg gtggcactga 180 gccccccaa cactgtgccc tggtggagaa agcactgacc tgtcatgccc ccctcaaacc 240 tcctcttctg acgtgcctnt tgcacccctc ccattaggac aatcagtccc ctcccatctg 300 ggagtcccct tttctttct accctagcca ttcctggtac ccagccatct gcccaagggt 360 gccccctcct ctcccatccc cctgccctcg tgggcagccc ggctggtttt gtaaatgtgg 420 gttgtgnaca gtgatttttt cttgtattta aaaaaggcca gcattgtggt tcattaaa <210> 405 <211> 223 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (147) <223> n equals a,t,g, or c <220> <221> misc feature <222> (158) <223> n equals a,t,g, or c

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<220>
<221> misc feature
<222> (172)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (217)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (223)
<223> n equals a,t,g, or c
<400> 405
agacagcagg acggtggcca tggaagtcgg aatccgctaa ggagtgtgta acaactcacc 60
tgccgaatca actagccctg aaaatggatg gcgctggagc gtcgggccca tacccgtccg 120
tcgccggcag tcgagagtgg acgggancgg cgggggcngc gcgcgcgcg gncgtgatgg 180
tgtgcgtcgg agggcggcgg cggcggcggg ggtgtgnggt ccn
<210> 406
<211> 104
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (8)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (37)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (81)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (93)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (103)
<223> n equals a,t,g, or c
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<400> 406
cccacgente egeogacage ageageetea ccatgangtt getgatggte eteatgetgg 60
cggccctctc ccagcactgc nacgcaggct ctngctgccc ctna
<210> 407
<211> 66
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (17)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (21)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (57)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (66)
<223> n equals a,t,g, or c
<400> 407
gccctatagt gagtctngta ncaattcact ggccgtcgtt ttacaacgtc gtgacgngga 60
aaactn
                                                                   66
<210> 408
<211> 278
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (6)
<223> n equals a,t,g, or c
<220>
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<222> (19)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<222> (252)
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 <222> (275)
 <223> n equals a,t,g, or c
<400> 408
 gggcanagca agctcctgna cctcaagtga tccacatgcc ttggttgacc aaattgctgg 60
 gattacaggc atgagccaat atgaccagct caaacatctt ctttttaaat gtcagaagca 120
 tgtatagtga ttatttctta ttttttcccc cttgatccat ctcaccagat gtttgttgat 180
 tttataagaa ttttcaaact accagcttct ggctttgttg aacttgggat ttctgtttca 240
                                                                    278
 ctaattttct tnctcctgtc ttgtacttac tttgntgg
 <210> 409
 <211> 168
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc feature
 <222> (16)
 <223> n equals a,t,g, or c
 <220>
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 <222> (38)
 <223> n equals a,t,g, or c
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 <222> (145)
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<221> misc feature
<222> (167)
<223> n equals a,t,g, or c
<400> 409
aataaaactc taaaangatc actataaaaa aagcaggnac gcctgcaggt accggtccgg 60
aattcccggg tcgacccacg cgtccgacgg ctgcgagaag acgacagaag ggcacggctg 120
cgagaanacg acagaagggn gcnantgaaa gaaggcggca gaaaggnt
                                                                   168
<210> 410
<211> 415
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (307)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (347)
<223> n equals a,t,q, or c
<400> 410
tgaataccta agatttctgt cttggggttt ttggtgcatg cagttgatta cttcttattt 60
ttcttaccaa ttgtgaatgt tggtgtgaaa caattaatga agcttttgaa tcatccctat 120
tctgtgtttt atctagtcac ataaatggat taattactaa tttcagttga gaccttctaa 180
ttggttttta ctgaaacatt gagggaacac aaatttatgg gcttcctgat gatgattctt 240
ctaggcatca tgtcctatag tttgtcatcc ctgatgaatg taaaattaca ctgttcacaa 300
aggttingto teettteeac tgetattaat catggteact eteccenaaa tattatatt 360
tttctattaa aagaaaaaaa tggaaaaaaa ttacaaggca atggaaacta ttata
<210> 411
<211> 636
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (383)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (512)
<223> n equals a,t,g, or c
<221> misc feature
<222> (519)
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<223> n equals a,t,g, or c
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<222> (544)
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<220>
<221> misc feature
<222> (547)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (583)
<223> n equals a,t,g, or c
<220>
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<222> (599)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (603)
<223> n equals a,t,g, or c
<400> 411
qcaqatcaga cqtqqcqacc cqctqaattt aaqcatatta qtcaqcqqaq qagaaqaaac 60
taaccaggat tooctcagta acggcgagtg aacagggaag agcccagcgc cgaatccccg 120
ccccgcggcg gggcgcggga catgtggcgt acggaagacc cgctccccgg cgccgctcgt 180
ggggggccca agtccttctg atcgaggccc agcccgtgga cggtgtgagg ccggtagcgg 240
cccccggcgc gccgggcccg ggtcttcccg gagtcgggtt gcttgggaat gcagcccaaa 300
gcgggtggta aactccatct aaggctaaat ccccttgtaa atttaactgt tagtccaaag 360
aggaacagct ctttggacac tangaaaaaa ccttgtagag agagtaaaaa atttaacacc 420
catagtaggc ctaaaagcag ccaccaatta agaaagcgtt caagctcaac acccactacc 480
taaaaaatcc caaacatata actgaactcc tnacacccna ttggaccaat ctatcaccct 540
atanaanaac taatggtagt ataagtaaca tgaaaacatt ctncttcgca taagcctgng 600
                                                                   636
tanattaaaa cacttgaact gaccattaac aggcca
<210> 412
<211> 182
<212> DNA
<213> Homo sapiens
<220>
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<222> (129)
<223> n equals a,t,g, or c
<220>
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<220>

WO 00/55173 PCT/US00/05881

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<221> misc feature
<222> (166)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (169)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (170)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (172)
<223> n equals a,t,g, or c
<400> 412
ccattgattt ttatcaatag tcgtattcat acggatagtc ctggtattgt tccatcacat 60
tctgaggatg ctcttcgaac tcttcaaatt cttcttccat atatcacctt aaatagtgga 120
ttgcggtant aaagattgtg cctgtctttt aaccacatca ggctcngann gntctcgtga 180
ac
<210> 413
<211> 387
<212> DNA
<213> Homo sapiens
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<222> (157)
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<221> misc feature
<222> (253)
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<222> (317)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (323)
<223> n equals a,t,g, or c
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WO 00/55173

362

PCT/US00/05881

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<221> misc feature
  <222> (349)
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  <220>
  <221> misc feature
  <222> (351)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (364)
  <223> n equals a,t,g, or c
  <400> 413
  tegacecacg cgteegeea cgcgteegee aagaceacee teettteatt tgctagaagg 60
  actcactaga ctcaggaaag ctgttaggct cacagttaca gtttattaca gtaaaaggac 120
  agagattaag atcagcaaag ggaggaggtg cacagcnacg ttccacgaca gatgaggcga 180
  eggettecat etgecetete ecagtggage catataggea geacetgatt eteacageaa 240
  catgtgacaa canccaagaa gtactgccaa tactgccaac cagagcagct tcactcggag 300
  atctttgtgt tecaganttt ttngtttgtc ttggagacag ggtctgggnc ngtttgggca 360.
  gacnaagagt acatggtgga gattcac
  <210> 414
  <211> 276
  <212> DNA
  <213> Homo sapiens
  <220>
  <221> misc feature
  <222> (60)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (186)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (195)
  <223> n equals a,t,q, or c
  <220>
<221> misc feature
  <222> (237)
  <223> n equals a,t,g, or c
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  <222> (260)
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<221> misc feature
<222> (266)
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<400> 414
gcaaaggtcc atactggtta cttggtttca ttgccaccac ttagtggatg ttcagtttan 60
aaccattttg totgotocot otggaagoot tgcgcatago ttactttgta attgttggag 120
aataactgct gaatttttag ctgttttgag ttgattcgca ccactgcacc acaactcact 180
atgaanacta tttancttat ttattatctt gtgaaaagta taccatgaaa attttgntca 240
tactgtattt atcaagtatn attaanagca ctagat
<210> 415
<211> 192
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (78)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (88)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (99)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (145)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (150)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (164)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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364

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<222> (168)
<223> n equals a,t,g, or c
<400> 415
aaaagattgg actaagacac tggccatacc actggacagg gttatgttaa cacctgaaat 60
tgctgggtct tgagagancc caacgcantt ctgggagang gaccacattg gggggtaggt 120
ccacgggctt ggtgatagaa ttatntctcn atcgacttct tgantgcnat atgaactgta 180
acatttgctt ag
<210> 416
<211> 439
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (7)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (9)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (64)
<223> n equals a,t,g, or c
<220>
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<222> (406)
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<220>
<221> misc feature
<222> (417)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (421)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (431)
<223> n equals a,t,g, or c
<220>
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<221> misc feature

365

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<222> (434)
<223> n equals a,t,g, or c
<400> 416
gcgagantnc gacagaaggg tacggctgcg agagacgaca gaagggtacg gctgcgagaa 60
gacnacagaa gggtacggct gcgagaagac gacagaaggg tacggctgcg agaagacgac 120
agaagggtac ggctgcgaga agacgacaga aggtacggct gcgagaagac gacagaagga 180
tacggctgcg agaagacgac agaagggaga atcttagttc aactttaaat ttgcccacag 240
aaccetetaa atcecettgt aaatttaact gttagtecaa agaggaacag etetttggac 300
actaggaaaa aaccttgtag agagagtaaa aaatttaaca cccatagtag gcctaaaagc 360
agccaccaat taagaaagcg ttcaaagctc aacacccact acccanaaaa taaaaanaaa 420
naaaaacccg nggnccgct
                                                                   439
<210> 417
<211> 155
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (9)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (84)
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<221> misc feature
<222> (122)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (123)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (143)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (153)
<223> n equals a,t,g, or c
<400> 417
gacatettnt tggtttttat tttgaaacaa tttttagget tgtteegggg gtetetgtge 60
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tgcctgtact gtattgacct gttntatagg tgccttttta ttaaaaagaa aattcaaaaa 120

155

366

annaaaaaaa aaattaataa aanaaaaaaa aanca

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<210> 418
<211> 291
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (285)
<223> n equals a,t,g, or c
<220>
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<222> (286)
<223> n equals a,t,g, or c
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<222> (288)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (289)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (291)
<223> n equals a,t,q, or c
<400> 418
gaaaaaagaa atccatatct taaagaaaca gctttcaagt qcctttctgc agtttttcag 60
gagcgcaaga tagatttgga ataggaataa gctctagttc ttaacaaccg acactcctac 120
aagatttaga aaaaagttta caacataatc tagtttacag aaaaatcttg tgctagaata 180
ctttttaaaa ggtattttga ataccattaa aactgctttt ttttttccag caagtatcca 240
accaacttgg ttctgcttca ataaatcttt ggaaaaacta atttnnanna n
<210> 419
<211> 340
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
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	<222> (315) <223> Xaa equals any of the naturally occurring L-amino acids														
			quals	s any	y of	the	nati	ral	ly o	ccuri	ring	L-an	nino	acio	is
)> 4:														
Val 1	Xaa	Asp	Trp	Phe 5	Leu	Trp	Tyr	Val	Lys 10	Lys	Cys	Gly	Gly	Thr 15	Thr
Arg	Ile	Ile	Ser 20	Thr	Thr	Asn	Gly	Gly 25	Gln	Glu	Arg	Lys	Phe 30	Val	Gly
Gly	Ser	Gly 35	Gln	Val	Ser	Glu	Arg 40	Ile	Met	Asp	Leu	Leu 45	Gly	Asp	Arg
Val	Lys 50	Leu	Glu	Arg	Pro	Val 55	Ile	Tyr	Ile	Asp	Gln 60	Thr	Arg	Glu	Asn
Val 65	Leu	Val	Glu	Thr	Leu 70	Asn	His	Glu	Met	Tyr 75	Glu	Ala	Lys	Tyr	Val 80
Ile	Ser	Ala	Ile	Pro 85	Pro	Thr	Leu	Gly	Met 90	Lys	Ile	His	Phe	Asn 95	Pro
Pro	Leu	Pro	Met 100	Met	Arg	Asn	Gln	Met 105	Ile	Thr	Arg	Val	Pro 110	Leu	Gly
Ser	Val	Ile 115	Lys	Cys	Ile	Val	Tyr 120	Tyr	Lys	Glu	Pro	Phe 125	Trp	Arg	Lys
Lys	Asp 130	Tyr	Cys	Gly	Thr	Met 135	Ile	Ile	Asp	Gly	Glu 140	Glu	Ala	Pro	Val
Ala 145	Tyr	Thr	Leu	Asp	Asp 150	Thr	Lys	Pro	Glu	Gly 155	Asn	Tyr	Ala	Ala	Ile 160
Met	Gly	Phe	Ile	Leu 165	Ala	His	Lys	Ala	Arg 170	Lys	Leu	Ala	Arg	Leu 175	Thr
Lys	Glu	Glu	Arg 180	Leu	Lys	Lys	Leu	Cys 185	Glu	Leu	Tyr	Ala	Lys 190	Val	Leu
Gly	Ser	Leu 195	Glu	Ala	Leu	Glu	Pro 200	Val	His	туг	Glu	Glu 205	Lys	Asn	Trp
Cys	Glu 210	Glu	Gln	Tyr	Ser	Gly 215	Gly	Cys	Tyr	Thr	Thr 220	Tyr	Phe	Pro	Pro

Gly Ile Leu Thr Gln Tyr Gly Arg Val Leu Arg Gln Pro Val Asp Arg

Ile Tyr Phe Ala Gly Thr Glu Thr Ala Thr His Trp Ser Gly Tyr Met

PCT/US00/05881

368

WO 00/55173

65

Glu Gly Ala Val Glu Ala Gly Glu Arg Ala Ala Arg Glu Ile Leu His 260 265 Ala Met Gly Lys Ile Pro Glu Asp Glu Ile Trp Gln Ser Glu Pro Glu 280 Ser Val Asp Val Pro Ala Gln Pro Ile Thr Thr Thr Phe Leu Glu Arg 295 300 His Leu Pro Ser Val Pro Gly Leu Leu Arg Xaa Ile Gly Leu Thr Thr 305 315 310 Ile Phe Ser Ala Thr Ala Leu Gly Phe Leu Ala His Lys Arg Gly Leu 325 330 Leu Val Arg Val 340 <210> 420 <211> 111 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (48) <223> Xaa equals any of the naturally occurring L-amino acids <400> 420 Thr Arg Asp Leu Val Ser Phe Ile Ser Gly Ile Arg Leu Tyr Asn Leu 10 Met Leu Ser Val Leu Arg His Lys Arg Gln Asn Val Ala Tyr Phe Arg 25 30 Ile Cys Phe Phe Ile Glu Val Ser Gly Ile Leu Ser Lys Ile Val Xaa Ser Arg His Cys Ser Leu Cys Ser Ser Gly Thr Ser Cys Pro Leu Leu 55 Ser Leu Gln Ala Thr Gly Asn Ala Ser Val Leu Val Ser Trp Arg Lys

70

Ile Thr Trp Gly Glu Gly Thr Ser Cys Gly Lys Ser Lys Cys Arg Tyr

Glu Met Arg Arg Leu Pro Gln Leu Lys Val Asp Lys Ser Ala Leu

369

100 105 110

<210> 421

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 421

Xaa Ile Trp Cys Ile Ile Cys Lys Glu Ser Lys Met Met Ser Phe Pro $1 \cdot 5$ 10 15

Arg Gly Met Asn Leu Arg Asn Ala Phe Asp Gly Asp Val Ser Val Thr 20 25 30

Leu Cys Tyr Ser Gly Ser Ser Asn Asn Ser Lys Ala Asn Tyr Ser Lys
35 40 45

Cys Lys Ile Phe Leu Phe Pro Arg Phe Thr Phe Val Trp 50 55 60

<210> 422

<211> 51

<212> PRT

<213> Homo sapiens

<400> 422

Thr His Ala Tyr Cys Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln Trp $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Arg Ala Trp Met Gln Lys Ser His Lys Thr Arg Asn Gln His Arg Thr 20 25 30

Arg Gly Ser Cys Pro Arg Ala Asp Gly Ala Arg Arg Glu Val Leu Pro $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Asp Lys Leu 50

<210> 423

<211> 246

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<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (71)
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<220>
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<220>
<221> SITE
<222> (117)
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<220>
<221> SITE
<222> (147)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 423
Thr Arg Asn Asp Met Lys Ala Asp Cys Ile Leu Tyr Tyr Gly Phe Gly
                                     10
Asp Ile Phe Arg Ile Ser Ser Met Val Val Met Glu Asn Val Gly Gln
             20
                                 25
Gln Lys Leu Tyr Glu Met Val Ser Tyr Cys Gln Asn Ile Ser Lys Cys
Arg Arg Val Leu Met Ala Gln His Phe Asp Glu Val Trp Asn Ser Glu
Ala Cys Asn Lys Met Cys Xaa Asn Cys Cys Lys Asp Ser Ala Phe Glu
Arg Lys Asn Ile Thr Glu Tyr Cys Arg Asp Leu Ile Lys Ile Leu Lys
                                     90
Gln Ala Glu Gly Xaa Gly Met Glu Lys Leu Thr Pro Ile Gly Asn Trp
            100
                                105
Ile Asp Ser Trp Xaa Gly Lys Gly Ala Ala Lys Leu Arg Val Ala Gly
                            120
Val Val Ala Pro Thr Leu Pro Arg Glu Asp Leu Glu Lys Ile Ile Ala
                        135
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371

His Phe Xaa Ile Gln Gln Tyr Leu Lys Glu Asp Tyr Ser Phe Thr Ala 150 155 Tyr Ala Thr Ile Ser Tyr Leu Lys Ile Gly Pro Lys Ala Asn Leu Leu 165 170 175 Asn Asn Glu Ala His Ala Ile Thr Met Gln Val Thr Lys Ser Thr Gln 185 Asn Ser Phe Arg Ala Glu Ser Ser Gln Thr Cys His Ser Glu Gln Gly 200 Asp Lys Lys Met Glu Glu Lys Asn Ser Gly Asn Phe Gln Lys Lys Ala Ala Asn Met Leu Gln Gln Ser Gly Ser Lys Asn Thr Gly Ala Lys Lys 235 Arg Lys Ile Asp Asp Ala 245 <210> 424 <211> 109 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (77) <223> Xaa equals any of the naturally occurring L-amino acids Asp His Trp Pro Arg Pro Glu Trp Leu Pro Cys Thr Ser Trp Arg Arg Ala Ser Cys Leu Asn His Val Asn Cys His His Leu Ala Thr Pro Ala 25 Pro Ala Ser Ala Leu Pro Pro Phe Pro Pro Ser Trp Ser Gly Gly Tyr 35 40 45 Arg Ser Leu Gly Pro Thr Leu Ala Pro Leu Ser Pro Ala Ser Val Cys 55 Leu Thr Val Phe Pro Pro Leu Pro Gln Leu Arg Cys Xaa Pro Gln Ala 70 75 65

Trp Cys Cys Leu Gly Gly Leu Gly Glu Gly Val Cys Gly Gly Gly Arg

90

372

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Arg Val Lys Thr Glu Ala Arg Cys Gln Asn Gly Leu Glu
100 105
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<210> 425

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 425

Gly Ser Glu Thr Xaa Lys Tyr Leu Val Glu Asp Lys Arg Leu Gly Leu 1 5 10

Tyr Thr Trp Leu Cys Thr Asp Leu Leu Ser His Ile Gly Asn His His 20 25 30

Thr Leu Gln Gly Ile Ser Phe Ile Cys Lys Met Gln Arg Leu Val Leu 35 40 45

Xaa Asn His Thr Asn Phe Phe Val Leu 50 55

<210> 426

<211> 99

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (96)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 426

Phe Gly Thr Ser Gly Asp Gly Gly Gly Ser Lys Met Ala Gln Ala Ile
1 5 10 15

Phe Glu Ala Leu Glu Gly Met Asp Asn Gln Thr Val Leu Ala Val Gln

373

20 25 30

Ser Leu Leu Asp Gly Gln Gly Ala Val Pro Asp Pro Thr Gly Gln Ser 35 40 45

Val Asn Ala Pro Pro Ala Ile Gln Pro Leu Asp Asp Glu Asp Val Phe 50 55 60

Leu Cys Gly Lys Cys Lys Gln Phe Asn Ser Leu Pro Ala Phe Met 65 70 75 80

Thr His Lys Arg Glu Gln Cys Gln Gly Asn Ala Pro Ala Leu Ala Xaa 85 90 95

Val Ser Leu

<210> 427

<211> 55

<212> PRT

<213> Homo sapiens

<400> 427

Asn Ser Asn Ser Ser Ile Phe Ser Leu Val Ser Val Lys Cys Asp Lys

1 10 15

Ser Thr Tyr Phe Lys Leu Phe Ser Ala Leu Gly Tyr Ser Ser Asn Lys 20 25 30

As Thr As Leu Trp Val Phe Lys Lys Thr Trp Arg Ile As Ser Tyr 35 40 45

Phe Lys Arg Ser Lys Lys Lys 50 55

<210> 428

<211> 54

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Kaa equals any of the naturally occurring L-amino acids

<400> 428

His Thr Leu Ser Asn Leu Glu Phe Ala Gln Lys Val Glu Pro Cys Asn

374

1 5 10 15 Asp His Val Arg Ala Lys Leu Ser Trp Ala Lys Lys Arg Asp Glu Asp 25 Asp Val Pro Thr Val Pro Ser Thr Xaa Gly Glu Glu Arg Leu Tyr Asn 40 Pro Phe Leu Arg Val Ala 50 <210> 429 <211> 39 <212> PRT <213> Homo sapiens <400> 429 Arg Gln Thr Lys Val Asn Leu Lys Glu Thr Arg Ser Phe Glu Ile Ile 5 . Val Trp Gly Phe Tyr Lys Ser Asn Tyr Cys His Leu His Pro Asp Ser 25 Phe Lys Leu Leu Ile His Pro 35 <210> 430 <211> 133 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (81) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (85) <223> Xaa equals any of the naturally occurring L-amino acids <400> 430 Ala Arg Ala Pro Arg Val Pro Pro Ala Pro His Thr Pro Ser Lys Met Gly Lys Glu Lys Thr His Ile Asn Ile Val Val Ile Gly His Val Asp

375

Ser Gly Lys Ser Thr Thr Thr Gly His Leu Ile Tyr Lys Cys Gly Gly 35 40 45

Ile Asp Lys Arg Thr Ile Glu Lys Phe Glu Lys Glu Ala Ala Glu Met
50 55 60

Gly Lys Gly Ser Phe Lys Tyr Ala Trp Val Leu Asp Lys Leu Lys Ala 65 70 75 80

Xaa Val Ser Ala Xaa Ile Thr Ile Asp Ile Ser Leu Trp Lys Phe Glu 85 90 95

Thr Thr Lys Tyr Tyr Ile Thr Ile Ile Asp Ala Pro Gly His Arg Asp 100 105 110

Phe Ile Lys Asn Met Ile Thr Gly Thr Ser Gln Ala Asp Cys Ala Val 115 120 125

Leu Ile Val Ala Ala 130

<210> 431

<211> 190

<212> PRT

<213> Homo sapiens

<400> 431

Leu Cys Trp Ala Arg Pro Leu Pro Ser Gly Pro Val Leu Leu Ala Ala 1 5 10 15

Asn Lys Asp Ser Ser Trp Cys Pro Thr Cys Leu Val His Cys Cys Val 20 25 30

Asn Pro Gly Gly Ser Gly His Arg Arg Gln Pro Arg Pro Arg Val Gln
35 40 45

Glu Lys Cys Ser Leu Glu Ala Arg Thr Thr Ala Ser His Trp Gly Arg 50 60

Arg Gly Pro Arg Thr Thr Ser Ala Ser Tyr Leu Pro Ala Ser Ala Arg
65 70 75 80

Gly Pro Arg Asp Ala Val Leu Phe Gln Pro Pro Ala Leu Gly Arg Gly 85 90 95

His Ala Ser Arg Ile Gln Gly Ala Gly Gly Leu Ser Thr Ala Arg Thr 100 105 110

376

Cys Leu Leu Ala Ala Ala Ala Val Gly Glu His Gly Gly Cys Gln Arg Leu Leu Trp Lys Val Ala Ala Ser Glu Met Ala Gly Ala Ala Gly Val 130 135 140

PCT/US00/05881

Arg Leu His Thr Ala Gln Val Ser Ser Gly Arg Leu Ser Trp Gly Gly 150

Ser Ser Ser Ala Glu Gly Trp Trp Gly Val Gln Ser Val Ile Leu Gly 170

Ala Val Cys Pro Thr Pro Ala Trp Gly Pro His Phe Arg Arg 185

<210> 432

WO 00/55173

<211> 310

<212> PRT

<213> Homo sapiens

<400> 432

Gly Pro His Gly Asn Gly Glu Val Arg Trp Pro Leu Pro Pro Pro Pro

Pro Arg Phe Val Ala Arg Arg Lys Met Ala Asp Leu Glu Glu Gln Leu

Ser Asp Glu Glu Lys Val Arg Ile Ala Ala Lys Phe Ile Ile His Ala

Pro Pro Gly Glu Phe Asn Glu Val Phe Asn Asp Val Arg Leu Leu Leu

Asn Asn Asp Asn Leu Leu Arg Glu Gly Ala Ala His Ala Phe Ala Gln 70

Tyr Asn Leu Asp Gln Phe Thr Pro Val Lys Ile Glu Gly Tyr Glu Asp

Gln Val Leu Ile Thr Glu His Gly Asp Leu Gly Asn Gly Lys Phe Leu 105

Asp Pro Lys Asn Arg Ile Cys Phe Lys Phe Asp His Leu Arg Lys Glu 115

Ala Thr Asp Pro Arg Pro Cys Glu Val Glu Asn Ala Val Glu Ser Trp 135

Arg Thr Ser Val Glu Thr Ala Leu Arg Ala Tyr Val Lys Glu His Tyr

377

145 150 155 160 Pro Asn Gly Val Cys Thr Val Tyr Gly Lys Lys Ile Asp Gly Gln Gln 165 170 Thr Ile Ile Ala Cys Ile Glu Ser His Gln Phe Gln Ala Lys Asn Phe 185 Trp Asn Gly Arg Trp Arg Ser Glu Trp Lys Phe Thr Ile Thr Pro Ser 195 200 Thr Thr Gln Val Val Gly Ile Leu Lys Ile Gln Val His Tyr Tyr Glu 215 Asp Gly Asn Val Gln Leu Val Ser His Lys Asp Ile Gln Asp Ser Leu 230 225 235 Thr Val Ser Asn Glu Val Gln Thr Ala Lys Glu Phe Ile Lys Ile Val 250 Glu Ala Ala Glu Asn Glu Tyr Gln Thr Ala Ile Ser Glu Asn Tyr Gln 265 Thr Met Ser Asp Thr Thr Phe Lys Ala Leu Arg Arg Gln Leu Pro Val 280 Thr Arg Thr Lys Ile Asp Trp Asn Lys Ile Leu Ser Tyr Lys Ile Gly 295 300 Lys Glu Met Gln Asn Ala 305 <210> 433 <211> 289 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (287) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (288) <223> Xaa equals any of the naturally occurring L-amino acids <400> 433 Gln Ser Cys Thr Ser Gly Ser Ser Lys Pro Asn Ser Pro Ser Ile Ser

WO 00/55173

378

PCT/US00/05881

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Ser	Gln	Gly 35	Val	Gln	Thr	Ser	Ser 40	Pro	Ala	Cys	Lys	Gln 45	Glu	Lys	Asp
Asp	Lys 50	Glu	Glu	Lys	Lys	Asp 55	Ala	Ala	Glu	Gln	Val 60	Arg	Lys	Ser	Thr
Leu 65	Asn	Pro	Asn	Ala	Lys 70	Glu	Phe	Asn	Pro	Arg 75	Ser	Phe	Ser	Gln	Pro 80
Lys	Pro	Ser	Thr	Thr 85	Pro	Thr	Ser	Pro	Arg 90	Pro	Gln	Ala	Gln	Pro 95	Ser
Pro	Ser	Met	Val 100	Gly	His	Gln	Gln	Pro 105	Thr	Pro	Val	Tyr	Thr 110	Gln	Pro
Val	Cys	Phe 115	Ala	Pro	Asn	Met	Met 120	Tyr	Pro	Val	Pro	Val 125	Ser	Pro	Gly
Val	Gln 130	Pro	Leu	Tyr	Pro	Ile 135	Pro	Met	Thr	Pro	Met 140	Pro	Val	Asn	Gln
Ala 145	Lys	Thr	туг	Arg	Ala 150	Gly	Lys	Val	Pro	Asn 155	Met	Pro	Gln	Gln	Arg 160
Gln	Asp	Gln	His	His 165	Gln	Ser	Ala	Met	Met 170	His	Pro	Ala	Ser	Ala 175	Ala
Gly	Pro	Pro	Ile 180	Ala	Ala	Thr	Pro	Pro 185	Ala	Tyr	Ser	Thr	Gln 190	Tyr	Val
Ala	Tyr	Ser 195	Pro	Gln	Gln	Phe	Pro 200	Asn	Gln	Pro	Leu	Val 205	Gln	His	Val
Pro	His 210	Tyr	Gln	Ser	Gln	His 215	Pro	His	Val	туг	Ser 220	Pro	Val	Ile	Gln
Gly 225	Asn	Ala	Arg	Met	Met 230	Ala	Pro	Pro	Thr	His 235	Ala	Gln	Pro	Gly	Leu 240
Val	Ser	Ser	Ser	Ala 245	Thr	Gln	Tyr	Gly	Ala 250	His	Glu	Gln	Thr	His 255	Ala
Met	Tyr	Ala	Cys 260	Pro	Lys	Leu	Pro	туг 265	Asn	Lys	Glu	Thr	Ser 270	Pro	Ser

Phe Tyr Phe Ala Ile Ser Thr Gly Ser Leu Ala Gln Gln Tyr Xaa Xaa

379

275 280 285

Pro

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<212> PRT

<213> Homo sapiens

<400> 434

Lys Val Thr Pro Asp Leu Lys Pro Thr Glu Ala Ser Ser Ser Ala Phe 1 5 10 15

Arg Leu Met Pro Ala Leu Gly Val Ser Val Ala Asp Gln Lys Gly Lys
20 25 30

Ser Thr Val Ala Ser Ser Glu Ala Lys Pro Ala Ala Thr Ile Arg Ile 35 40 45

Val Gln Gly Leu Gly Val Met Pro Pro Lys Ala Gly Gln Thr Ile Thr 50 60

Val Ala Thr His Ala Lys Gln Gly Ala Ser Val Ala Ser Gly Ser Gly 65 70 75 80

Thr Val His Thr Ser Ala Val Ser Leu Pro Ser Met Asn Ala Ala Val 85 90 95

Ser Lys Thr Val Ala Val Ala Ser Gly Ala Ala Arg Pro Pro Ser Ala 100 105 110

Ser Ala Gln Glu Pro Pro Cys Gly Arg Ser Leu Ser Ala Pro Arg 115 120 125

Leu Cys Pro Arg Pro Arg Leu Gly Ser Cys Leu His Gly Ser Gln Phe 130 135 140

Pro Ser Leu

145

<210> 435

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<212> PRT

<213> Homo sapiens

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His Thr His Thr Gly Gly Glu Ile Ser Leu Phe Ser Met Ser Phe Phe
20 25 30

Ser Trp Ala Glu Thr Gly Tyr Cys Pro Gly Gln Leu Pro Glu Lys His $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Arg Arg Glu Leu Arg Ser Ala Arg Pro Ser Ser Leu Ala Pro Gly Phe 50 60

Gly Gly Pro Arg Thr Ala Asp Arg Gly Trp Ser Trp Arg Leu Xaa Ser
65 70 75 80

Arg Ala Tyr Thr Trp Arg Asn Ala Pro Pro Ser Ser Pro Ser Leu Gln
85 90 95

Thr Trp Gly Trp Leu Gly Pro Glu Gly Cys Asp Glu Glu Lys Arg Ala 100 105 110

Ser Val Gly Met Arg Gln Glu Gly Ile Asp Phe Asp Cys Asp Leu Trp 115 120 125

Gly Phe Leu Pro Ala Leu Asp Asn Pro Ala Lys Asp Cys Phe Phe Leu 130 . 135 140

Ser Leu Ala Arg Arg Gly Pro 145 150

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<211> 180

<212> PRT

<213> Homo sapiens

381

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Pro	Ala	Gln	Pro 20	Ala	Pro	Met	Val	Pro 25	Leu	His	Gln	Lys	Gln 30	Ser	Arg
Tla	Thr	Pro	Tla	Gln	Lys	Dro	ara	Clu	Vaa) e n	Pro	V=1	Gl v	בוז	T.OI
116	1111	35	116	GIII	цуэ	FIU	40	GLy	naa	vah	FIU	45	914	110	Det
Gln	Glu	Arg	Glu	Tyr	Arg	Leu	Gln	Ala	Arg	Ile	Ala	His	Arg	Ile	Glı
	50					55					60				
Glu	Leu	Glu	Asn	Leu	Pro	Gly	Ser	Leu	Ala	Gly	Asp	Leu	Arg	Thr	Lys
65					70					75					80
Ala	Thr	Ile	Glu	Leu	Lys	Ala	Leu	Arg	Leu	Leu	Asn	Phe	Gln	Arg	Glı
				85					90					95	
Leu	Arg	Gln	Glu	Val	Val	Val	Cys	Met	Arg	Arg	Asp	Thr	Ala	Leu	Glı
			100					105					110		
Thr	Ala	Leu	Asn	Ala	Lys	Ala	Tyr	Lys	Arg	Xaa	Ser	Ala	Ser	Pro	Суя
		115					120					125			
Ala	Arg	Pro	Ala	Ser	Leu	Arg	Ser	Trp	Arg	Ser	Ser	Arg	Arg	Ser	Sei
	130					135					140				
Arg	Ser	Ala	Ser	Ala	Gly	Arg	Ser	Thr	Arg	Asn	Thr	Ser	Ile	Ala	Phe
145					150					155					160
Ser	Ser	Met	Pro	Arq	Ile	Ser	Ara	Asn	Ile	Thr	Asp	Pro	Ser	Gln	Ala
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<210> 437

Lys Ser Arg Ser

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	2> P														
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	2> (
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	2> (
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-00	•-														
<22															
	1> S														
	2> (3> Y		qual	e an	, of	the	nati		1 0	00UF	rina	T 21	mino	2016	1
-22	J- A	aa c	quar	5 a 11	y OI	CHE	nac	urar.	ry o	CCur.	Ling	L-ai	III TIIO	acro	15
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Arg	Lys	Tyr	Leu	Val	Pro	Leu	Xaa	Lys	Lys	Leu	Tyr	Leu	Lys	Trp	Ala
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T.An	Glu	Glu	Tyr	Len	Aen	Glu	Dhe	Asn	Pro	Cve	uic	Cve	Ara	Pro	Cve
neu	Olu	Olu	20	пец	nsp	GIU	rne	25	FLO	Cys	1113	Cys	30	FLO	Суз
Gln	Asn	Gly	Gly	Leu	Ala	Thr	Val	Glu	Gly	Thr	His	Cys	Leu	Cys	His
		35					40					45			
Cve	T.vg	Pro	Tyr	Thr	Dhe	Gly	λla	בומ	Cve	Glu	Gln	Glv	Va 1	Len	V=1
cys	50	PIO	TYL	TIIL	File	55	MIA	MIG	Cys	GIU	60	GIY	vai	Leu	vai
Gly	Asn	Gln	Ala	Gly	Gly	Val	Asp	Gly	Gly	Trp	Ser	Cys	Trp	Ser	Ser
65					70				_	75					80
			_												
Trp	Ser	Pro	Cys		Gln	Gly	Lys	Lys		Arg	Ser	Arg	Xaa	-	Xaa
				85					90					95	
Asn	Pro	Pro	Pro	Ser	Glv	Glv	Glv	Ara	Ser	Cvs	Val	Glv	Glu	Thr	Thr
			100		1	1	U-1	105		0,0		1	110		
Glu	Ser	Thr	Gln	Cys	Glu	Asp	Glu	Glu	Leu	Glu	His	Leu	Arg	Leu	Leu
		115					120					125			
	_		_		_	_	_	_		_	_,			_	_
GLu		His	Cys	Phe	Pro		Ser	Leu	Val	Pro		Glu	Phe	Cys	Pro
	130					135					140				

Ser 145	Pro	Pro	Ala	Leu	Lys 150	Asp	Gly	Phe	Val	Gln 155	Asp	Glu	Gly	Thr	Met 160
Phe	Pro	Val	Gly	Lys 165	Asn	Val	Val	Tyr	Xaa 170	Cys	Asn	Glu	Gly	Tyr 175	Ser
Leu	Ile	Gly	Asn 180	Pro	Val	Ala	Arg	Cys 185	Gly	Glu	Asp	Leu	Arg 190	Trp	Leu
Val	Gly	Glu 195	Met	His	Cys	Gln	Lys 200	Ile	Ala	Cys	Val	Leu 205	Pro	Val	Leu
Met	Asp 210	Gly	Ile	Gln	Ser	His 215	Pro	Gln	Lys	Pro	Phe 220	Tyr	Thr	Val	Gly
Glu 225	Lys	Val	Thr	Val	Ser 230	Cys	Ser	Gly	Gly	Met 235	Ser	Leu	Glu	Gly	Pro 240
Ser	Ala	Phe	Leu	Cys 245	Gly	Ser	Ser	Leu	Lys 250	Trp	Ser	Pro	Glu	Met 255	Lys
Asn	Ala	Arg	Cys 260	Val	Gln	Lys	Glu	Asn 265	Pro	Leu	Thr	Gln	Ala 270	Val	Pro
Lys	Суз	Gln 275	Arg	Trp	Glu	Lys	Leu 280	Gln	Asn	Ser	Arg	Cys 285	Val	Cys	Lys
Met	Pro 290	Tyr	Glu	Cys	Gly	Pro 295	Ser	Leu	Asp	Val	Cys 300	Ala	Gln	Asp	Glu
Arg 305	Ser	Lys	Arg	Ile	Leu 310	Pro	Leu	Thr	Val	Cys 315	Lys	Met	His	Val	Leu 320
His	Cys	Gln	Gly	Arg 325	Asn	Tyr	Thr	Leu	Thr 330	Gly	Arg	Asp	Ser	Cys 335	Thr
Leu	Pro	Ala	Ser 340	Ala	Glu	Lys	Ala	Cys 345	Gly	Ala	Суз	Pro	Leu 350	Trp	Gly
Lys	Cys	Asp 355	Ala	Glu	Ser	Ser	Lys 360	Cys	Val	Суз	Arg	Glu 365	Ala	Ser	Glu
Cys	Glu 370	Glu	Glu	Gly	Phe	Ser 375	Ile	Cys	Val	Glu	Val 380	Asn	Gly	Lys	Glu
Gln 385	Thr	Met	Ser	Glu	Cys 390	Glu	Ala	Gly	Ala	Leu 395	Arg	Суз	Arg	Gly	Gln 400
Ser	Ile	Ser	Val	Thr	Ser	Ile	Arg		Cys 410	Ala	Ala	Glu	Thr	Gln 415	

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Xaa Xaa Phe Pro Gly Met Glu Ala Phe Leu Gly Ser Arg Ser Gly Leu
             20
Trp Ala Gly Gly Pro Ala Pro Gly Gln Phe Tyr Arg Ile Pro Ser Thr
Pro Asp Ser Phe Met Asp Pro Ala Ser Ala Leu Tyr Arg Gly Pro Ile
    50
                         55
                                             60
Thr Arg Thr Gln Asn Pro Met Val Thr Gly Thr Ser Val Leu Gly Val
                     70
Lys Phe Glu Gly Gly Val Val Ile Ala Ala Asp Met Leu Gly Ser Tyr
                 85
                                     90
Gly Ser Leu Ala Arg Phe Arg Asn Ile Ser Arg Ile Met Arg Val Asn
            100
Asn Ser Thr Met Leu Gly Ala Ser Gly Asp Tyr Ala Asp Phe Gln Tyr
                            120
Leu Lys Gln Val Leu Gly Gln Met Val Ile Asp Glu Glu Leu Leu Gly
                        135
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385

Asp Gly His Ser Tyr Ser Pro Arg Ala Ile His Ser Trp Leu Thr Arg Ala Met Tyr Ser Arg Arg Ser Lys Met Asn Pro Leu Trp Asn Thr Met 165 170 Val Ile Gly Gly Tyr Ala Asp Gly Glu Ser Phe Leu Gly Tyr Val Asp 185 Met Leu Gly Val Ala Tyr Glu Ala Pro Ser Leu Ala Thr Gly Tyr Gly 200 Ala Tyr Leu Ala Gln Pro Leu Leu Arg Glu Val Leu Glu Lys Gln Pro 215 Val Leu Ser Gln Thr Glu Ala Arg Asp Leu Val Glu Arg Cys Met Arg Val Leu Tyr Tyr Arg Asp Ala Arg Ser Tyr Asn Arg Phe Gln Ile Ala 245 250 Thr Val Thr Glu Lys Gly Val Glu Ile Glu Gly Pro Leu Ser Thr Glu Thr Asn Trp Asp Ile Ala His Met Ile Ser Gly Phe Glu 275 280 <210> 439 <211> 185 <212> PRT <213> Homo sapiens <400> 439 Asn Ser Ala Ala His Lys Lys Gly Lys Leu Pro Ile Val Asn Glu Asp Asp Glu Leu Val Ala Ile Ile Ala Arg Thr Asp Leu Lys Lys Asn Arg Asp Tyr Pro Leu Ala Ser Lys Asp Ala Lys Lys Gln Leu Leu Cys Gly Ala Ala Ile Gly Thr His Glu Asp Asp Lys Tyr Arg Leu Asp Leu Leu Ala Gln Ala Gly Val Asp Val Val Leu Asp Ser Ser Gln Gly Asn 70 Ser Ile Phe Gln Ile Asn Met Ile Lys Tyr Ile Lys Asp Lys Tyr Pro

386

85 90 Asn Leu Gln Val Ile Gly Gly Asn Val Val Thr Ala Ala Gln Ala Lys 105 Asn Leu Ile Asp Ala Gly Val Asp Ala Leu Arg Val Gly Met Gly Ser 120 Gly Ser Ile Cys Ile Thr Gln Glu Val Leu Ala Cys Gly Arg Pro Gln 135 Ala Thr Ala Val Tyr Lys Val Ser Glu Tyr Ala Arg Arg Phe Gly Val 150 155 Pro Val Ile Ala Asp Gly Gly Ile Gln Asn Val Gly His Ile Ala Lys Ala Leu Ala Leu Gly Ala Pro Gln Ser <210> 440 <211> 211 <212> PRT <213> Homo sapiens <400> 440 Leu Gln Gly Arg Ser Thr Pro Ile Trp Pro Ala Leu Ala Thr Val Thr Ser Arg Thr Pro Ala Leu Gly Pro Gln Ala Gly Ile Asp Thr Asn Glu 20 Ile Ala Pro Leu Glu Pro Asp Ala Pro Pro Asp Ala Cys Glu Ala Ser Phe Asp Ala Val Ser Thr Ile Arg Gly Glu Leu Phe Phe Lys Ala Gly Phe Val Trp Arg Leu Arg Gly Gly Gln Leu Gln Pro Gly Tyr Pro 65 70 Ala Leu Ala Ser Arg His Trp Gln Gly Leu Pro Ser Pro Val Asp Ala 90 Ala Phe Glu Asp Ala Gln Gly His Ile Trp Phe Phe Gln Gly Ala Gln 100

Tyr Trp Val Tyr Asp Gly Glu Lys Pro Val Leu Gly Pro Ala Pro Leu

120

387

Thr Glu Leu Gly Leu Val Arg Phe Pro Val His Ala Ala Leu Val Trp Gly Pro Glu Lys Asn Lys Ile Tyr Phe Phe Arg Gly Arg Asp Tyr Trp Arg Phe His Pro Ser Thr Arg Arg Val Asp Ser Pro Val Pro Arg Arg 170 Pro Leu Thr Gly Glu Gly Cys Pro Leu Arg Ser Thr Leu Pro Ser Arg 180 185 Met Leu Met Ala Met Pro Thr Ser Cys Ala Ala Ala Ser Thr Gly Ser 200 Leu Thr Leu 210 <210> 441 <211> 80 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (40) <223> Xaa equals any of the naturally occurring L-amino acids Gly Gly Ala Gly Lys Leu Leu Ser Phe Thr His Ser Ala Pro Trp Ser Arg Leu Trp Ser Ser Leu Gly Lys Arg Val Thr Gly Glu Ser Gln Gly 25 Leu Glu Lys Leu Pro Gly Thr Xaa Asp Gly Leu Ala Ala Leu Thr Gln 40 . Asp Pro Leu Pro Leu Pro Pro Pro Leu Cys Arg Asn Thr Gly Thr Pro

Arg Gly Lys Met Ser Phe Ser Arg Leu Gln Phe Ser Pro Arg Lys Leu

75

70

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Ser Phe Met Thr Cys Thr Gln Asn Val Ala Pro Asp Met Phe Arg Thr

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Ile	Pro	Pro 35	Glu	Ala	Asn	Ile	Pro 40	Ile	Pro	Val	Lys	Ser 45	Asp	Met	Val
Met	Met 50	His	Glu	His	His	Lys 55	Glu	Thr	Glu	туг	Lys 60	Asp	Lys	Ile	Pro
Leu 65	Leu	Gln	Gln	Pro	Lys 70	Arg	Glu	Glu	Glu	Glu 75	Val	Leu	Asp	Gln	Gly 80
Asp	Phe	Tyr	Ser	Leu 85	Leu	Ser	Lys	Leu	Leu 90	Gly	Glu	Arg	Glu	Asp 95	Val
Val	His	Val	His 100	Lys	Tyr	Asn	Pro	Thr 105	Glu	Lys	Ala	Glu	Ser 110	Glu	Ser
Asp	Leu	Val 115	Ala	Glu	Ile	Ala	Asn 120	Val	Val	Gln	Lys	Lys 125	Asp	Leu	Gly
Arg	Ser 130	Asp	Ala	Arg	Glu	Gly 135	Ala	Glu	His	Glu	Arg 140	Gly	Asn	Ala	Ile
Leu 145	Val	Arg	Asp	Arg	Ile 150	His	Lys	Phe	His	Arg 155	Leu	Val	Ser	Thr	Leu 160
Arg	Pro	Pro	Glu	Ser 165	Arg	Val	Phe	Ser	Leu 170	Gln	Gln	Pro	Pro	Pro 175	Gly
Glu	Gly	Thr	Trp 180	Glu	Pro	Glu	His	Thr 185	Gly	Asp	Phe	His	Met 190	Glu	Glu
Ala	Leu	Asp 195	Trp	Pro _.	Gly	Val	Tyr 200	Leu	Leu	Pro	Gly	Хаа 205	Val	Ser	Gly
Val	Ala 210	Leu	Xaa	Pro	Lys	Asn 215	Asn	Leu	Val	Ile	Phe 220	His	Arg	Gly	Asp
His 225	Val	Trp	Asp	Gly	Asn 230	Ser	Phe	Asp	Ser	Lys 235	Phe	Val	Tyr	Gln	Gln 240
Ile	Gly	Leu	Gly	Pro 245	Ile	Glu	Glu	Asp	Thr 250	Ile	Leu	Val	Ile	Asp 255	Pro
Asn	Asn	Ala	Ala 260	Val	Leu	Gln	Ser	Ser 265	Gly	Lys	Asn	Lèu	Phe 270	Tyr	Leu
Pro	His	Gly 275	Leu	Ser	Ile	Asp	Lys 280	Asp	Gly	Asn	Туr	Trp 285	Val	Thr	Asp
Val	Ala	Leu	His	Gln	Val	Phe	Lys	Leu	Asp	Pro	Asn	Asn	Lys	Glu	Gly

390

290 295 300 Pro Val Leu Ile Leu Gly Arg Ser Met Gln Pro Gly Ser Asp Gln Asn 310 His Phe Cys Gln Pro Thr Asp Val Ala Val Asp Pro Gly Thr Gly Ala 330 Ile Tyr Val Ser Asp Gly Tyr Cys Asn Ser Arg Ile Val Gln Phe Ser 345 Pro Ser Gly Lys Phe Ile Thr Gln Trp Gly Glu Glu Ser Ser Gly Ser 360 Ser Pro Leu Pro Gly Gln Phe Thr Val Pro His Ser Leu Ala Leu Val 370 375 Pro Leu Leu Gly Gln Leu Cys Val Ala Asp Arg Glu Asn Gly Arg Ile Gln Cys Phe Lys Thr Asp Thr Lys Glu Phe Val Arg Glu Ile Lys His 405 410 Ser Ser Phe Gly Arg Asn Val Phe Ala Ile Ser Tyr Ile Pro Gly Leu 425 Leu Phe Ala Val Asn Gly Lys Pro His Phe Gly Asp Gln Glu Pro Val 440 Gln Gly Phe Val Met Asn Phe Ser Asn Gly Glu Ile Ile Asp Ile Phe 450 455 Lys Pro Val Arg Xaa Leu Leu Asp Met Pro His Asp Ile Val Ala Ser Glu Asp Gly Thr Val Tyr Ile Gly Arg Cys Ser Tyr Gln His Arg Val 485 490 Gly Ser Ser Thr Leu Asp Xaa Arg Xaa Leu Gly Thr Ser Val Gln Phe 505 Lys Lys Gly Leu Xaa Ile Glu Val Gln Gly Asn Pro Lys Lys Pro Glu 520 Gly Ile Cys Cys Phe Pro Xaa Thr Thr Leu Arg Val Ile Pro Val Val 530 535

Gly Xaa Trp Arg Gly His Gly Pro Asn Leu Ile Pro Val Gly Lys Asn

555

550

Pro Arg Gly Pro Leu Gly Arg

391

565

<210> 443 <211> 129 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (123) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (127) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (129) <223> Xaa equals any of the naturally occurring L-amino acids Arg Pro Ser Cys Ser Pro Gly Ser Val Ser Ala Ala Val Asn Met 10 Glu Pro Pro Asp Ala Pro Ala Gln Ala Arg Gly Ala Pro Arg Leu Leu Leu Leu Ala Val Leu Leu Ala Ala His Pro Asp Ala Gln Ala Glu Val 35 40 Arg Leu Ser Val Pro Pro Leu Val Glu Val Met Arg Gly Lys Ser Val Ile Leu Asp Cys Thr Pro Thr Gly Thr His Asp His Tyr Met Leu Glu 70 75 Trp Phe Leu Thr Asp Arg Ser Gly Ala Arg Pro Arg Leu Ala Ser Ala 85 90 Glu Met Gln Gly Ser Glu Leu Gln Val Thr Met His Asp Thr Arg Gly 105 Arg Ser Pro Pro Tyr Gln Leu Gly Leu Pro Xaa Gly Ala Trp Xaa Leu 120 125

Xaa

WO 00/55173

<210> 444

PCT/US00/05881

392

<211> 131 <212> PRT <213> Homo sapiens <400> 444 Glu Pro Arg Val Glu Arg Glu Thr Pro Gly Gln Pro Phe Ser Ser Ser 5 10 Phe Pro Ser Pro Ser Pro Phe Pro Asn Val Ala Ser Met Trp Val Leu 20 Gly Thr Trp Glu Lys Pro Leu Leu Cys His Phe Phe Ser Leu Phe Pro Ser Ser Pro Pro Thr Val Trp Leu Met Met Ser Ser Gly Val Met Val 50 55 Thr Thr Pro Cys Ser Leu Phe Trp Tyr Phe Pro Cys Gln Phe Pro Leu Ser Ala Arg Leu Cys Pro Lys Ile Pro Ser Ala Ser Ser Leu His Val 90 Ala Glu Gly Pro Gly Leu Pro Gln Val Pro Cys Leu Ser Asn Lys Val 100 Glu Thr Ile Lys Pro Gly Lys Lys Lys Gly Gly Arg Ser Lys Gly 120

<210> 445

Ser Pro Arg 130

<211> 405

<212> PRT

<213> Homo sapiens

<400> 445

Gly Thr Gly Leu Val Pro Ile Arg Gln Ser Thr Lys Phe Asp Ser Ser 1 10 15

Leu Asp Arg Lys Asp Lys Phe Ser Phe Asp Leu Gly Lys Gly Glu Val 20 25 30

Ile Lys Ala Trp Asp Ile Ala Ile Ala Thr Met Lys Val Gly Glu Val

WO 00/55173

		35					40					45			
Cys	His 50	Ile	Thr	Cys	Lys	Pro 55	Glu	Tyr	Ala	Tyr	Gly 60	Ser	Ala	Gly	Ser
Pro 65	Pro	Lys	Ile	Pro	Pro 70	Asn	Ala	Thr	Leu	Val 75	Phe	Glu	Val	Glu	Leu 80
Phe	Glu	Phe	Lys	Gly 85	Glu	Asp	Leu	Thr	Glu 90	Glu	Glu	Asp	Gly	Gly 95	Ile
Ile	Arg	Arg	Ile 100	Gln	Thr	Arg	Gly	Glu 105	Gly	Tyr	Ala	Lys	Pro 110	Asn	Glu
Gly	Ala	Ile 115	Val	Glu	Val	Ala	Leu 120	Glu	Gly	Tyr	Tyr	Lys 125	Asp	Lys	Leu
Phe	Asp 130	Gln	Arg	Glu	Leu	Arg 135	Phe	Glu	Ile	Gly	Glu 140	Gly	Glu	Asn	Leu
Asp 145	Leu	Pro	туг	Gly	Leu 150	Glu	Arg	Ala	Ile	Gln 155	Arg	Met	Glu	Lys	Gly 160
Glu	His	Ser	Ile	Val 165	Tyr	Leu	Lys	Pro	Ser 170	туг	Ala	Phe	Gly	Ser 175	Val
Gly	Lys	Glu	Lys 180	Phe	Gln	Ile	Pro	Pro 185	Asn	Ala	Glu	Leu	Lys 190	Tyr	Glu
Leu	His	Leu 195	Lys	Ser	Phe	Glu	Lys 200	Ala	Lys	Glu	Ser	Trp 205	Glu	Met	Asn
Ser	Glu 210	Glu	Lys	Leu	Glu	Gln 215	Ser	Thr	Ile	Val	Lys 220	Glu	Arg	Gly	Thr
Val 225	Tyr	Phe	ГЛЗ	Glu	Gly 230	Lys	Tyr	Lys	Gln	Ala 235	Leu	Leu	Gln	Tyr	Lys 240
Lys	Ile	Val	Ser	Trp 245	Leu	Glu	туг	Glu	Ser 250	Ser	Phe	Ser	Asn	Glu 255	Glu
Ala	Gln	Lys	Ala 260	Gln	Ala	Leu	Arg	Leu 265	Ala	Ser	His	Leu	Asn 270	Leu	Ala
Met	Cys	His 275	Leu	Lys	Leu	Gln	Ala 280	Phe	Ser	Ala	Ala	1le 285	Glu	Ser	Cys
Asn	Lys 290	Ala	Leu	Glu	Leu	Asp 295	Ser	Asn	Asn	Glu	Lys 300	Gly	Leu	Phe	Arg
Arg	Gly	Glu	Ala	His	Leu	Ala	Val	Asn	Asp	Phe	Glu	Leu	Ala	Arg	Ala

305					310					315					320
Asp	Phe	Gln	Lys	Val 325	Leu	Gln	Leu	Tyr	Pro 330	Asn	Asn	Lys	Ala	Ala 335	Lys
Thr	Gln	Leu	Ala 340	Val	Cys	Gln	Gln	Arg 345	Ile	Arg	Arg	Gln	Leu 350	Ala	Arç
Glu	Lys	Lys 355	Leu	Tyr	Ala	Asn	Met 360	Phe	Glu	Arg	Leu	Ala 365	Glu	Glu	Glu
Asn	Lys 370	Ala	Lys	Ala	Glu	Ala 375	Ser	Ser	Gly	Asp	His 380	Pro	Thr	Asp	Thr
Glu 385	Met	Lys	Glu	Glu	Gln 390	Lys	Ser	Asn	Thr	Ala 395	Gly	Ser	Gln	Ser	Glr 400
Val	Glu	Thr	Glu	Ala 405											
<212 <212)> 44 l> 23 2> PF 3> Ho	32 RT	sapie	ens											
<400)> 44	6													
Pro 1	Leu	Val	Pro	Ser 5	Ser	Gln	Lys	Ala	Leu 10	Leu	Leu	Glu	Leu	Lys 15	Gly
Leu	Gln	Glu	Glu 20	Pro	Val	Glu	Gly	Phe 25	Arg	Val	Thr	Leu	Val 30	Asp	Glu
Gly	Asp	Leu 35	Tyr	Asn	Trp	Glu	Val 40	Ala	Ile	Phe	Gly	Pro 45	Pro	Asn	Thr
Tyr	Tyr 50	Glu	Gly	Gly	Tyr	Phe 55	Lys	Ala	Arg	Leu	Lys 60	Phe	Pro	Ile	Asp
Tyr 65	Pro	Tyr	Ser	Pro	Pro 70	Ala	Phe	Arg	Phe	Leu 75	Thr	Lys	Met	Trp	His 80
Pro	Asn	Ile	Tyr	Glu 85	Thr	Gly	Asp	Val	Су з 90	Ile	Ser	Ile	Leu	His 95	Pro
Pro	Val	Asp	Asp 100	Pro	Gln	Ser	Gly	Glu 105	Leu	Pro	Ser	Glu	Arg 110	Trp	Asn
Pro	Thr	Gln	Asn	Val	Arg	Thr	Ile	Leu	Leu	Ser	Val	Ile	Ser	Leu	Leu

395

Asn Glu Pro Asn Thr Phe Ser Pro Ala Asn Val Asp Ala Ser Val Met

135 130 140 Tyr Arg Lys Trp Lys Glu Ser Lys Gly Lys Asp Arg Glu Tyr Thr Asp 150 Ile Ile Arg Lys Gln Val Leu Gly Thr Arg Trp Thr Arg Val Asn Gly 165 170 Val Lys Val Pro Thr Thr Leu Ala Glu Tyr Cys Val Lys Thr Lys Ala 180 185 Pro Ala Pro Asp Glu Gly Ser Asp Leu Phe Tyr Asp Asp Tyr Tyr Glu 200 Asp Gly Glu Val Glu Glu Glu Ala Asp Ser Cys Phe Gly Asp Asp Glu 210 Asp Asp Ser Gly Thr Glu Glu Ser 225 230 <210> 447 <211> 356 <212> PRT <213> Homo sapiens <220> . . <221> SITE <222> (12) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (53) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (191) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (263) <223> Xaa equals any of the naturally occurring L-amino acids <400> 447 Cys Ser Pro Pro Pro Pro Pro Ala Ala Ala Ala Xaa Ala Ala Ala Ala

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1				5					10					15	
Ala	Met	Ala	Gln 20	Tyr	Lys	Gly	Ala	Ala 25	Ser	Glu	Ala	Gly	Arg 30	Ala	Met
His	Leu	Met 35	Lys	Lys	Arg	Glu	Lys 40	Gln	Arg	Glu	Gln	Met 45	Glu	Gln	Met
Lys	Gln 50	Arg	Ile	Xaa	Glu	Glu 55	Asn	Ile	Met	Lys	Ser 60	Asn	Ile	Asp	Lys
Lys 65	Phe	Ser	Ala	His	Tyr 70	Asp	Ala	Val	Glu	Ala 75	Glu	Leu	Lys	Ser	Ser 80
Thr	Val	Gly	Leu	Val 85	Thr	Leu	Asn	Asp	Met 90	Lys	Ala	Lys	Gln	Glu 95	Ala
Leu	Val	Lys	Glu 100	Arg	Glu	Lys	Gln	Leu 105	Ala	Lys	Lys	Glu	Gln 110	Ser	Lys
Glu	Leu	Gln 115	Met	Lys	Leu	Glu	Lys 120	Leu	Arg	Glu	Lys	Glu 125	Arg	Lys	Lys
Glu	Ala 130	Lys	Arg	Lys	Ile	Ser 135	Ser	Leu	Ser	Phe	Thr 140	Leu	Glu	Glu	Glu
Glu 145	Glu	Gly	Gly	Glu	Glu 150	Glu	Glu	Glu	Ala	Ala 155	Met	Tyr	Glu	Glu	Glu 160
Met	Glu	Arg	Glu	Glu 165	Ile	Thr	Thr	Lys	Lys 170	Arg	Lys	Leu	Gly	Lys 175	Asn
Pro	Asp	Val	Asp 180	Thr	Ser	Phe	Leu	Pro 185	Asp	Arg	Asp	Arg	Glu 190	Xaa	Glu
Glu	Asn	Arg 195	Leu	Arg	Glu	Glu	Leu 200	Arg	Gln	Glu	Trp	G1u 205	Ala	Lys	Gln
Glu	Lys 210	Île	Lys	Ser	Glu	Glu 215	Ile	Glu	Ile	Thr	Phe 220	Ser	Tyr	Trp	Asp
Gly 225	Ser	Gly	His	Arg	Arg 230	Thr	Val	Lys	Met	Arg 235	Lys	Gly	Asn	Thr	Met 240
Gln	Gln	Phe	Leu	G1n 245	Lys	Ala	Leu	Glu	11e 250	Leu	Arg	Lys	Asp	Phe 255	Ser
			260		Gly			265					270		
Leu	Ile	Ile	Pro	His	His	His	Ser	Phe	Tyr	Asp	Phe	Ile	Val	Thr	Lys

397

275 280 285

Ala Arg Gly Lys Ser Gly Pro Leu Phe Asn Phe Asp Val His Asp Asp 290 295 300

Val Arg Leu Leu Ser Asp Ala Thr Val Glu Lys Asp Glu Ser His Ala 305 310 315 320

Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile Phe 325 330 335

Pro Ala Ser Arg Trp Glu Pro Tyr Asp Pro Glu Lys Lys Trp Asp Lys 340 345 350

Tyr Thr Ile Arg 355

<210> 448

<211> 88

<212> PRT

<213> Homo sapiens

<400> 448

Lys Thr His Lys Met Cys Asp Ala Phe Val Gly Thr Trp Lys Leu Val
1 10 15

Ser Ser Glu Asn Phe Asp Asp Tyr Met Lys Glu Val Gly Val Gly Phe $20 \hspace{1cm} 25 \hspace{1cm} 30$

Ala Thr Arg Lys Val Ala Gly Met Ala Lys Pro Asn Met Ile Ile Ser 35 40 45

Val Asn Gly Asp Val Ile Thr Ile Lys Ser Glu Ser Thr Phe Lys Asn 50 60

Thr Glu Ile Ser Phe Ile Leu Gly Gln Glu Phe Asp Glu Ala Leu Gln 65 70 75 80

Met Thr Gly Lys Ser Arg Ala Pro 85

<210> 449

<211> 171

<212> PRT

<213> Homo sapiens

<220>

398

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<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 449

Leu Ile Leu Val Leu Met Phe Val Val Trp Met Lys Arg Arg Asp Lys

1 10 15

Glu Arg Gln Ala Lys Gln Leu Leu Ile Asp Pro Glu Asp Asp Val Arg 20 25 30

Asp Asn Ile Leu Lys Tyr Asp Glu Glu Gly Gly Gly Glu Glu Asp Gln 35 40 45

Asp Tyr Asp Leu Ser Gln Leu Gln Gln Pro Asp Thr Val Glu Pro Asp 50 55 60

Ala Ile Lys Pro Val Gly Ile Xaa Arg Met Asp Glu Arg Pro Ile His 65 70 75 80

Ala Glu Pro Gln Tyr Pro Val Arg Ser Ala Ala Pro His Pro Gly Asp
85 90 95

Ile Gly Asp Phe Ile Asn Glu Gly Leu Lys Ala Ala Asp Asn Asp Pro 100 105 110

Thr Ala Pro Pro Tyr Asp Ser Leu Leu Val Phe Asp Tyr Glu Gly Ser 115 120 125

Gly Ser Thr Xaa Gly Ser Leu Ser Ser Leu Asn Ser Ser Ser Ser Gly
130 135 140

Gly Glu Gln Asp Tyr Asp Tyr Leu Asn Asp Trp Gly Pro Arg Phe Lys 145 150 155 160

Lys Leu Ala Asp Met Tyr Gly Gly Gly Asp Asp 165 170

<210> 450

<211> 34

<212> PRT

<213> Homo sapiens

<400> 450

399

Lys Val Lys Ala Cys Cys Lys Asp Ile Phe Phe Leu Leu Glu Gly 1 5 15

Asn Thr Lys Arg Lys Ile Ser Phe Phe His Gly Ala Phe Asp Asn Phe 20 25 30

Ser Leu

<210> 451

<211> 148

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (89)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 451

Arg Thr Leu His Pro Ala Thr Gly Pro Arg Ala Arg Pro Pro Arg Gly
1 5 10 15

Trp Arg Arg Leu Cys Ala Gln Gly Pro Ala Pro Asp Trp Asp Pro
20 25 30

Gly Val Pro Pro Gly Leu Ala Ser Cys Gly Xaa Thr Val Trp Leu His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Phe Ser Asp Pro Ser Leu Gly Arg Lys Val Lys Glu Thr Gly Pro Ala 50 60

Ser Ala Phe Gly Leu Trp Phe Leu Asp Arg Val Leu Ser Pro Ser Pro 65 70 75 80

Pro Ser Ser Pro Asn Leu Ser His Xaa Arg Pro Leu Pro Ala Ala Pro 85 90 95

Ser Leu Leu Gly Ile Gly Ser Pro Glu Pro Pro Ser Pro Glu Pro Pro
100 105 110

Thr Pro Leu Pro Gly Pro Cys Gly Cys Trp Ala Ser His Leu Lys Glu 115 120 125

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Gly Lys Val Val Gln Pro Glu Pro Val Glu Gln Cys Pro Val Trp Pro
   130
                        135
Pro Lys Pro Lys
145
<210> 452
<211> 83
<212> PRT
<213> Homo sapiens
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<222> (19)
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<220>
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<222> (28)
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<220>
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<222> (79)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 452
Asp Ser His Arg Pro Arg Ala Met Arg Ala Leu Trp Val Leu Gly Leu
                                    10
Ser Cys Xaa Leu Leu Thr Phe Gly Ser Val Arg Xaa Asp Asp Glu Val
             20
Asp Val Asp Gly Thr Val Glu Glu Asp Leu Gly Lys Ser Arg Glu Gly
Ser Arg Thr Asp Asp Glu Val Val Gln Arg Glu Glu Glu Ala Ile Xaa
     50
                         55
                                             60
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401

Val Gly Trp Ile Lys Cys Ile Pro Asn Lys Arg Thr Xaa Glu Xaa Lys 65 70 75 80

Ser Arg Lys

<210> 453

<211> 240

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (234)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 453

Gly Trp Leu Pro Cys Gly Ser Ser Val Val Pro Ala Thr Pro Gly Ser 1 5 10 15

Pro Pro Ser Arg Phe Trp Leu Leu Pro Ala Met Ala Leu Arg Val Leu 20 25 30

Leu Leu Thr Ala Leu Thr Leu Cys His Gly Phe Asn Leu Asp Thr Glu
35 40 45

Asn Ala Met Thr Phe Gln Glu Asn Ala Arg Gly Phe Gly Gln Ser Val 50 60

Val Gln Leu Gln Gly Ser Arg Val Val Val Gly Ala Pro Gln Glu Ile 65 70 75 80

Val Ala Ala Asn Gln Arg Gly Ser Leu Tyr Gln Cys Asp Tyr Ser Thr 85 90 95

Gly Ser Cys Glu Pro Ile His Leu Gln Val Pro Val Glu Ala Val Asn $100 \hspace{1cm} 105 \hspace{1cm} 110$

Met Ser Leu Gly Leu Ser Leu Ala Ala Thr Thr Ser Pro Pro Gln Leu 115 120 125

Leu Ala Cys Gly Pro Thr Val His Gln Thr Cys Ser Glu Asn Thr Tyr 130 135 140

Val Lys Gly Leu Cys Phe Leu Phe Gly Ser Asn Leu Arg Gln Gln Pro 145 150 155 160

Gln Lys Phe Pro Glu Ala Leu Arg Gly Cys Pro Gln Glu Asp Ser Asp 165 170 175

402

 11e
 Ala
 Phe
 Leu
 11e
 Asp
 Gly
 Ser
 Gly
 Ser
 11e
 11e
 Pro
 His
 Asp
 Phe

 Arg
 Arg
 Met
 Lys
 Glu
 Phe
 Val
 Ser
 Thr
 Val
 Met
 Glu
 Glu
 Glu
 Leu
 Lys
 Lys

 Ser
 Lys
 Thr
 Leu
 Phe
 Ser
 Leu
 Met
 Gln
 Tyr
 Ser
 Glu
 Glu
 Phe
 Arg
 Ile

 His
 Phe
 Thr
 Ser
 Lys
 Ser
 Ser
 Arg
 Thr
 Xaa
 Leu
 Thr
 Gln
 Asp
 His
 Trp

 225
 Thr
 Ser
 Lys
 Ser
 Ser
 Arg
 Thr
 Xaa
 Leu
 Thr
 Gln
 Asp
 His
 Trp

 225
 Thr
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<210> 454 <211> 244 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (206) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (227) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (229) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (239) <223> Xaa equals any of the naturally occurring L-amino acids <400> 454 Lys Trp Cys Ser Trp Thr Leu Leu Lys Ile Trp Glu Val Thr Cys Thr 5 10 Trp Lys Leu Pro Thr Leu Ala Lys Phe Ser Pro Tyr Leu Gly Gln Met 20 25

Ile Asn Leu Arg Arg Leu Leu Ser His Ile His Ala Ser Ser Tyr

403

35 40 45 Ile Ser Pro Glu Lys Glu Glu Gln Tyr Ile Ala Gln Phe Thr Ser Gln 55 Phe Leu Ser Leu Gln Cys Leu Gln Leu Leu Tyr Val Asp Ser Leu Phe 70 75 Phe Leu Arg Gly Arg Leu Asp Gln Leu Leu Arg His Val Met Asn Pro Leu Glu Thr Leu Ser Ile Thr Asn Cys Arg Leu Ser Glu Gly Asp Val Met His Leu Ser Gln Ser Pro Ser Val Ser Gln Leu Ser Val Leu Ser 120 Leu Ser Gly Val Met Leu Thr Asp Val Ser Pro Glu Pro Leu Gln Ala 135 Leu Leu Glu Arg Ala Ser Ala Thr Leu Gln Asp Leu Val Phe Asp Glu 150 155 Cys Gly Ile Thr Asp Asp Gln Leu Leu Ala Leu Leu Pro Ser Leu Ser 170 165 His Cys Ser Gln Leu Thr Thr Leu Ser Phe Tyr Gly Asn Ser Ile Ser Ile Ser Ala Leu Gln Ser Leu Leu Gln His Leu Ile Gly Xaa Ser Asn 200 205 Leu Thr His Val Leu Tyr Pro Val Pro Leu Glu Ser Tyr Glu Asp Ile 215 His Gly Xaa Leu Xaa Leu Glu Arg Leu Leu Ser Ala Cys Gln Xaa Gln 235 230 Gly Val Ala Val

<210> 455

<211> 195

<212> PRT

<213> Homo sapiens

<400> 455

His Glu Gly Thr Gln Ser Phe Val Phe Gln Arg Glu Glu Ile Ala Gln
1 5 10 15

404

Leu Ala Arg Gln Tyr Ala Gly Leu Asp His Glu Leu Ala Phe Ser Arg Leu Ile Val Glu Leu Arg Arg Leu His Pro Gly His Val Leu Pro Asp 40 Glu Glu Leu Gln Trp Val Phe Val Asn Ala Gly Gly Trp Met Gly Ala Met Cys Leu Leu His Ala Ser Leu Ser Glu Tyr Val Leu Leu Phe Gly 70 75 Thr Ala Leu Gly Ser Arg Gly His Ser Gly Arg Tyr Trp Ala Glu Ile 90 Ser Asp Thr Ile Ile Ser Gly Thr Phe His Gln Trp Arg Glu Gly Thr 105 Thr Lys Ser Glu Val Phe Tyr Pro Gly Glu Thr Val Val His Gly Pro 120 Gly Glu Ala Thr Ala Val Glu Trp Gly Pro Asn Thr Trp Met Val Glu 135 Tyr Gly Arg Gly Val Ile Pro Ser Thr Leu Ala Phe Ala Leu Ala Asp 145 150 155 Thr Val Phe Ser Thr Gln Asp Phe Leu Thr Leu Phe Tyr Thr Leu Arg 165 170 Ser Tyr Ala Arg Gly Leu Arg Leu Glu Leu Thr Thr Tyr Leu Phe Gly 185 Gln Asp Pro 195

<210> 456

<211> 36

<212> PRT

<213> Homo sapiens

<400> 456

Leu Val Thr Leu Leu His Ala Met Gln Ala Arg Asp Lys Thr Leu Gly
1 5 10 15

Leu Ala Thr Leu Cys Ile Gly Gly Gly Gln Gly Ile Ala Met Val Ile 20 25 30

405

Glu Arg Leu Asn 35

<210> 457

<211> 152

<212> PRT

<213> Homo sapiens

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<220>

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<222> (114)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 457

Val Thr Ala Ala Ala Ser Val Arg Ala Leu Gln Val Thr Val Ala Gly
1 5 10 15

Leu Leu Leu Val Phe Phe Leu Phe Gly Ala Pro Leu Asp Ser Leu Pro 20 25 30

Ser Met Lys Ala Leu Ser Pro Val Arg Gly Cys Tyr Glu Ala Val Cys 35 40 45

Cys Leu Ser Glu Arg Ser Leu Ala Ile Ala Arg Gly Arg Gly Lys Gly
50 55 60

Pro Ala Ala Glu Glu Pro Leu Ser Leu Leu Asp Asp Met Asn His Cys 65 70 75 80

Tyr Ser Arg Leu Arg Xaa Leu Val Pro Gly Val Pro Arg Gly Thr Gln
85 90 95

Leu Ser Gln Val Glu Ile Leu Gln Arg Val Ile Asp Tyr Ile Leu Asp 100 105 110

Leu Xaa Val Val Leu Ala Glu Pro Ala Pro Gly Pro Pro Asp Gly Pro
115 120 125

His Leu Pro Ile Gln Thr Ala Glu Leu Ala Pro Glu Leu Val Ile Ser 130 135 140

Asn Asp Lys Arg Ser Phe Cys His 145 150

WO 00/55173

<210> 458

PCT/US00/05881

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<211> 31
<212> PRT
<213> Homo sapiens
<220>
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<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 458
Leu Leu Asn Asn Phe Ile Phe Leu Glu Thr His Tyr Leu Trp Ala Cys
                  5
Xaa Thr Trp Thr Ile Trp Pro Asn Xaa Leu Asp Lys Lys Gly Xaa
<210> 459
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Asp Pro Arg Val Arg Glu Thr Thr Val Lys Ala Arg Ala Arg Ser Gln
                                     10
His Ala Gly Gly Pro Glu Leu Gly Leu Ser Gln Xaa Tyr Val Thr Pro
                                25
Arg Arg Pro Phe Glu Lys Ser Arg Leu Asp Gln Glu Leu Lys Leu Ile
Gly Glu Tyr Gly Leu Arg Asn Lys Arg Glu Val Trp Arg Val Lys Phe
Thr Leu Ala Lys Ile Arg Lys Xaa Ala Arg Glu Leu Leu Thr Leu Asp
 65
                     70
                                       75
Glu Lys Asp Pro Arg Arg Leu Phe Glu Gly Asn Ala Leu Leu Arg Arg
                 85
                                     90
Leu Val Arg Ile Gly Val Leu Asp Glu Gly Lys Met Lys Leu Asp Tyr
                               105
Ile Leu Gly Leu Lys Met Arg Ile Leu Gly Glu Xaa Ser Ala Asp Pro
                           120
Gly Xaa Ser Ser Trp Gly Trp Pro Ile His Pro Pro Cys Pro Val Leu
Ile Arg Gln Ala Thr Gln Val Arg Lys Gln Val Val Asn
145
                    150
<210> 460
<211> 136
<212> PRT
<213> Homo sapiens
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<222> (119)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (130)
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<220>
<221> SITE
<222> (135)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 460
Ile Trp Ala Pro Phe Pro His His Gln Gly Ser Gly Ser Gln Val Ser
                                     10
Ser Tyr Gly Thr Gly Ala Leu Lys Ser His Ile Met Ala Ala Lys Ala
Val Ala Asn Thr Met Arg Thr Ser Leu Gly Pro Asn Gly Leu Asp Lys
         35
                            40
Met Met Val Asp Lys Asp Gly Asp Val Thr Val Thr Asn Asp Gly Ala
                         55
Thr Ile Leu Ser Met Met Asp Val Asp His Gln Ile Ala Lys Leu Met
                                         75
Val Glu Leu Ser Lys Ser Gln Asp Asp Glu Ile Gly Asp Gly Asp His
                                     90
Gly Gly Cys Pro Gly Arg Arg Pro Ala Gly Arg Arg Pro Ser Ser
                               105
Cys Trp Thr Ala Ala Phe Xaa Arg Ser Gly Ser Pro Thr Val Thr Ser
        115
                          120
Arg Xaa Pro Ala Leu Ala Xaa Glu
    130
                       135
<210> 461
<211> 390
<212> PRT
<213> Homo sapiens
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<222> (11)
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<220>
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<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (382)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (383)
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<222> (386)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (387)
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<400> 461
Cys Gly Asn Trp Trp Val Pro Arg Ala Gly Xaa Asn Trp Xaa Arg Gly
Ser Arg Phe Leu Phe Val Asp Arg Cys Asp Arg His Leu Thr Met Gln
Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu Val Glu
         35
                             40
                                                  45
Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile Gln Asp Lys Glu
                         55
Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys Gln Leu
                     70
Glu Asp Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln Lys Glu Ser Thr
Leu His Leu Val Leu Arg Leu Arg Gly Gly Met Gln Ile Phe Val Lys
Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu Val Glu Pro Ser Asp Thr
                            120
```

410

Ile Glu Asn Val Lys Ala Lys Ile Gln Asp Lys Glu Gly Ile Pro Pro 135 Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys Gln Leu Glu Asp Gly Arg 145 150 155 Thr Leu Ser Asp Tyr Asn Ile Gln Lys Glu Ser Thr Leu His Leu Val 170 Leu Arg Leu Arg Gly Gly Met Gln Ile Phe Val Lys Thr Leu Thr Gly 185 Lys Thr Ile Thr Leu Glu Val Glu Pro Ser Asp Thr Ile Glu Asn Val 200 Lys Ala Lys Ile Gln Asp Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg 215 Leu Ile Phe Ala Gly Lys Gln Leu Glu Asp Gly Arg Thr Leu Ser Asp 225 230 235 Tyr Asn Ile Gln Lys Glu Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Gly Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr 265 Leu Glu Val Glu Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile 275 280 Gln Asp Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala 295 300 Gly Lys Gln Leu Glu Asp Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln 310 315 320 Lys Glu Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Gly Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu Val Glu 345 Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Arg Ser Arg Gln Gly Arg 355 360 His Pro Pro Asp Gln Gln Xaa Leu Ile Leu Leu Gly Lys Xaa Xaa Lys 380 375 Trp Xaa Xaa Pro Phe Asp 385 390

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<210> 462
<211> 171
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<400> 462
Cys Ser Thr Val Arg Ile Pro Gly Ser Thr His Ala Ser Gly Leu Ser
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Arg Arg Ala Ser Pro Val Tyr Leu Ala Ser Met Ser Gly Arg Gly Lys
             20
Thr Gly Gly Lys Ala Arg Ala Lys Ala Lys Ser Arg Ser Ser Arg Ala
                             40
Gly Leu Gln Phe Pro Val Gly Arg Val His Arg Leu Leu Arg Lys Gly
                         55
His Tyr Ala Glu Arg Val Gly Ala Gly Xaa Pro Val Tyr Leu Ala Ala
65
                     70
                                         75
Val Leu Glu Tyr Leu Thr Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala
                                     90
Ala Arg Asp Asn Lys Lys Thr Arg Ile Ile Pro Arg His Leu Gln Leu
            100
                                105
Ala Ile Arg Asn Asp Glu Glu Leu Asn Lys Leu Leu Gly Gly Val Thr
       115
                            120
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412

Ile Ala Gln Gly Arg Arg Xaa Ala Gln His Pro Gly Arg Xaa Cys Cys

Pro Arg Arg Pro Ala Pro Pro Trp Gly Arg Xaa Pro Phe Gly Gln 150 155 Glu Arg Ala Thr Lys Ala Ser Gln Gly Val Leu 165 <210> 463 <211> 433 <212> PRT <213> Homo sapiens <400> 463 Arg Val Arg Ala Pro Pro Arg Pro Pro Leu Gly Pro Ser Arg Pro Ser 5 . 10 His His Val His Pro Leu Gln Leu Pro Gly Ile Arg Glu Val Thr Ile Asn Gln Ser Leu Leu Ala Pro Leu Arg Leu Asp Ala Asp Pro Ser Leu Gln Arg Val Arg Gln Glu Glu Ser Glu Gln Ile Lys Thr Leu Asn Asn Lys Phe Ala Ser Phe Ile Asp Lys Val Arg Phe Leu Glu Gln Gln Asn 70 75 Lys Leu Leu Glu Thr Lys Trp Thr Leu Leu Gln Glu Gln Lys Ser Ala 85 90 Lys Ser Ser Arg Leu Pro Asp Ile Phe Glu Ala Gln Ile Ala Gly Leu . Arg Gly Gln Leu Glu Ala Leu Gln Val Asp Gly Gly Arg Leu Glu Ala 120 Glu Leu Arg Ser Met Gln Asp Val Val Glu Asp Phe Lys Asn Lys Tyr Glu Asp Glu Ile Asn Arg Arg Thr Ala Ala Glu Asn Glu Phe Val Val Leu Lys Lys Asp Val Asp Ala Ala Tyr Met Ser Lys Val Glu Leu Glu

170

413

Ala	Lys	Val	Asp 180	Ala	Leu	Asn	Asp	Glu 185	Ile	Asn	Phe	Leu	Arg 190	Thr	Leu
Asn	Glu	Thr 195	Glu	Leu	Thr	Glu	Leu 200	Gln	Ser	Gln	Ile	Ser 205	Asp	Thr	Ser
Val	Val 210	Leu	Ser	Met	Asp	Asn 215	Ser	Arg	Ser	Leu	Asp 220	Leu	Asp	Gly	Ile
Ile 225	Ala	Glu	Val	Lys	Ala 230	Gln	Tyr	Glu	Glu	Met 235	Ala	Lys	Cys	Ser	Arg 240
Ala	Glu	Ala	Glu	Ala 245	Trp	Tyr	Gln	Thr	Lys 250	Phe	Glu	Thr	Leu	Gln 255	Ala
Gln	Ala	Gly	Lys 260	His	Gly	Asp	Asp	Leu 265	Arg	Asn	Thr	Arg	Asn 270	Glu	Ile
Ser	Glu	Met 275	Asn	Arg	Ala	Ile	Gln 280	Arg	Leu	Gln	Ala	Glu 285	Ile	Asp	Asn
	290					295					300		Glu		
305					310		_			315			Gln		320
				325					330				Arg	335	
			340					345	-				Asp 350		
		355					360					365	Arg		
_	370	_		_		375					380		Ser		_
385					390					395			Gly		400
				405					410				Gly	415	
Lys	Ala		Ser		Arg			Ser		Ser	Arg		Ser		Arg

Asp

WO 00/55173

414

PCT/US00/05881

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<400> 464
Gly Ser Gly Cys Val Phe Ala Ile Leu Gly Arg Arg Cys Ser Arg Pro
Trp Arg Ile Trp Pro Gly Glu Pro Leu Gln Arg Ala Pro Pro Ala Ala
Gly Thr Arg Trp Pro His Gly His Arg Ser Ser Pro Val Gly Thr Pro
         35
                                                  45
                             40
Gly Xaa Ala Pro Asn Val Pro Ala Ile Trp Gln Gln Pro Leu Trp Xaa
     50
                         55
Glu Tyr Ser Cys Glu Tyr Gly Ser Met Lys Phe Tyr Ala Leu Cys Gly
```

415

65 70 75 80

Phe Gly Gly Val Leu Ser Cys Gly Leu Thr His Thr Ala Val Val Pro 85 90 95

Leu Asp Leu Val Lys Cys Arg Met Gln Val Asp Pro Gln Xaa Tyr Lys 100 105 110

Gly Xaa Xaa Asn Xaa Ile Leu Ile Asn 115 120

<210> 465

<211> 68

<212> PRT

<213> Homo sapiens

<400> 465

Arg Ile Pro Ala Pro Ala Ser Ser Arg His Ser Gly Gly Arg Cys Ala
1 5 10 15

Ala Gly Pro Arg Gly Pro Pro Ala Thr Ala Ser Arg Ala Leu Arg Ala 20 25 30

Val His Arg Pro Leu Asp Ala Ala Arg Gly Arg Thr Gly Ser Thr Ser 35 40 45

His Leu Cys Ser Ser Ser Tyr Thr Ile Gly Cys Leu Leu Trp Phe Ser 50 60

Gln Lys Ala Met 65

<210> 466

<211> 224

<212> PRT

<213> Homo sapiens

<400> 466

Ala Thr Ile Leu Glu Arg Glu Ala Glu Gln Ser Arg Leu Gly Ala Thr 1 5 10 15

Glu Arg Ala Ala Ala Ala Met Asn Pro Glu Tyr Asp Tyr Leu Phe
20 25 30

Lys Leu Leu Ile Gly Asp Ser Gly Val Gly Lys Ser Cys Leu Leu 35 40 45

416

PCT/US00/05881

Leu Arg Phe Ala Asp Asp Thr Tyr Thr Glu Ser Tyr Ile Ser Thr Ile 55 Gly Val Asp Phe Lys Ile Arg Thr Ile Glu Leu Asp Gly Lys Thr Ile 70 75 Lys Leu Gln Ile Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Thr Ile Thr Ser Ser Tyr Tyr Arg Gly Ala His Gly Ile Ile Val Val Tyr Asp 105 Val Thr Asp Gln Glu Ser Tyr Ala Asn Val Lys Gln Trp Leu Gln Glu 120 Ile Asp Arg Tyr Ala Ser Glu Asn Val Asn Lys Leu Leu Val Gly Asn Lys Ser Asp Leu Thr Thr Lys Lys Val Val Asp Asn Thr Thr Ala Lys 150 145 155 Glu Phe Ala Asp Ser Leu Gly Ile Pro Phe Leu Glu Thr Ser Ala Lys 170 Asn Ala Thr Asn Val Glu Gln Ala Phe Met Thr Met Ala Ala Glu Ile 185 Lys Lys Arg Met Gly Pro Gly Ala Ala Ser Gly Glu Arg Pro Asn 195 200 Leu Lys Ile Asp Ser Thr Pro Val Lys Pro Ala Gly Gly Cys Cys 215

<210> 467

WO 00/55173

<211> 76

<212> PRT

<213> Homo sapiens

<400> 467

Ser Glu Ala Pro Gly Glu Ser Val Gly Thr Thr Pro Glu Ala Gln Met
1 5 10 15

Lys Thr Gly Pro Phe Ala Glu His Ser Asn Gln Leu Trp Asn Ile Ser 20 25 30

Ala Val Pro Ser Trp Ser Lys Val Asn Gln Gly Leu Ile Arg Met Tyr

417

35 40 45 Lys Ala Glu Cys Leu Glu Lys Phe Pro Val Ile Gln His Phe Lys Phe 55 Gly Ser Leu Leu Pro Ile His Pro Val Thr Ser Gly 65 70 <210> 468 <211> 111 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (31) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (35) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (47) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (49) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (78) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (97) <223> Xaa equals any of the naturally occurring L-amino acids <400> 468 Ser Leu Ala Arg Thr Gly Pro Arg Ser Leu Ala Arg Pro Cys Arg Arg 5 1 10 15 Arg Pro Ala His Arg His Pro Leu Gln Pro Cys Pro Pro Gly Xaa Cys 20 25 30

418

Pro Arg Xaa Pro Thr Ala Asp Val Arg Arg Pro Arg His Arg Xaa Arg 35 40 45

Xaa Glu Leu His Ala His Asn Val Thr Ser Pro Pro Ala Pro Thr Ala 50 55 60

Trp Ala Ala Pro Ala Pro Gln His Gln Pro Gln Pro Leu Xaa Leu Val 65 70 75 80

Pro Gly Arg Arg Val Cys Ser Arg Leu Leu Pro Arg Cys Ala Cys Gly
85 90 95

Xaa Cys Cys Pro Gly Val Ala Leu Ala Gly Arg Ile Pro Trp Asn 100 105 110

<210> 469

<211> 459

<212> PRT

<213> Homo sapiens

<400> 469

Pro Arg Val Arg Pro Arg Val Arg Pro Arg Val Arg Leu Ser Ser Pro 1 5 10 15

Ser Pro Val Cys Leu Pro Pro Ala Ala Ala Thr Met Thr Thr Ser Ile 20 25 30

Arg Gln Phe Thr Ser Ser Ser Ser Ile Lys Gly Ser Ser Gly Leu Gly
35 40 45

Gly Gly Ser Ser Arg Thr Ser Cys Arg Leu Ser Gly Gly Leu Gly Ala 50 55 60

Gly Ser Cys Arg Leu Gly Ser Ala Gly Gly Leu Gly Ser Thr Leu Gly 65 70 75 80

Gly Ser Ser Tyr Ser Ser Cys Tyr Ser Phe Gly Ser Gly Gly Tyr
85 90 95

Gly Ser Ser Phe Gly Gly Val Asp Gly Leu Leu Ala Gly Gly Glu Lys 100 105 110

Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys 115 120 125

Val Arg Ala Leu Glu Glu Ala Asn Thr Glu Leu Glu Val Lys Ile Arg 130 135 140

145	Trp	туг	GIN	Arg	150	Ala	PIO	GIÀ	PIO	155	Arg	ASP	Tyr	ser	160
Tyr	Tyr	Arg	Thr	11e 165	Glu	Glu	Leu	Gln	Asn 170	Lys	Ile	Leu	Thr	Ala 175	Thr
Val	Asp	Asn	Ala 180	Asn	Ile	Leu	Leu	Gln 185	Ile	Asp	Asn	Ala	Arg 190	Leu	Ala
Ala	Asp	Asp 195	Phe	Arg	Thr	Lys	Phe 200	Glu	Thr	Glu	Gln	Ala 205	Leu	Arg	Leu
Ser	Val 210	Glu	Ala	Asp	Ile	Asn 215	Gly	Leu	Arg	Arg	Val 220	Leu	Asp	Glu	Leu
225					230		Glu			235					240
				245			Asn		250					255	
			260				Ile	265					270		
		275					Leu 280					285			
	290				•	295	Lys	_			300				
305					310		Glu			315					320
		_	_	325			Ser		330					335	
			340				Gln	345					350		
_		355					360		-	-		365			
	370					375	Val				380				
385					390		Gln		•	395				_	400
Lys	Thr	Arg	Leu	Glu 405	Gln	Glu	Ile	Ala	Thr 410	Tyr	Arg	Arg	Leu	Leu 415	Glu

420

Gly Glu Asp Ala His Leu Thr Gln Tyr Lys Lys Glu Pro Val Thr Thr 420 425 430

Arg Gln Val Arg Thr Ile Val Glu Glu Val Gln Asp Gly Lys Val Ile
435 440 445

Ser Ser Arg Glu Gln Val His Gln Thr Thr Arg 450 455

<210> 470

<211> 158

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (158)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 470

Pro Pro Pro Pro Pro Pro Glu Leu Cys Ser Met Ala Ser Arg Arg 1 5 10 15

Met Glu Thr Lys Pro Val Ile Thr Cys Leu Lys Thr Leu Leu Ile Ile 20 25 30

Tyr Ser Phe Val Phe Trp Ile Thr Gly Val Ile Leu Leu Ala Val Gly 35 40 45

Val Trp Gly Lys Leu Thr Leu Gly Thr Tyr Ile Ser Leu Ile Ala Glu 50 55 60

Asn Ser Thr Asn Ala Pro Tyr Val Leu Ile Gly Thr Gly Thr Thr Ile 65 70 75 80

Val Val Phe Gly Leu Phe Gly Cys Phe Ala Thr Cys Arg Gly Ser Pro 85 90 95

Trp Met Leu Lys Leu Tyr Ala Met Phe Leu Ser Leu Val Phe Leu Ala 100 105 110

Glu Leu Val Ala Gly Ile Ser Gly Phe Val Phe Arg His Glu Ile Lys 115 120 125

Asp Thr Phe Leu Arg Thr Tyr Thr Asp Ala Met Gln Thr Tyr Asn Gly 130 135 140

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<210> 471
<211> 59
<212> PRT
<213> Homo sapiens
<400> 471
Val Leu Phe Phe Tyr Glu Cys Pro Asn Leu Cys Phe Pro Leu Pro Ser
                 5
                            10
Gln Thr Val Trp Pro Val Glu Ser Val Trp Phe Val Phe Ile Ser Pro
             20
                                 25
Ser Phe Leu Glu Gln Gly Leu Arg Pro Cys His Ile Ser Tyr Ala Leu
                             40
His Pro Arg Leu Phe Trp Thr Leu Lys Val Asp
     50
                         55
<210> 472
<211> 320
<212> PRT
<213> Homo sapiens
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<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (49)
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<220>
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<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (105)
<223> Xaa equals any of the naturally occurring L-amino acids
Asp Pro Asp Glu Val Phe Pro Val Cys Leu Pro Leu Thr Gly Asp Ala
                 5
                                     10
                                                         15
```

422

Gly Glu Asp Gly Gly Lys Met Leu His Leu Pro Glu Trp Pro Glu Gln

			20					25					30		
Pro	Pro	Gly 35	Gly	Pro	Ala	Ala	Leu 40	Gln	Val	Arg	Gly	Ala 45	Glu	Asp	Xaa
Xaa	Leu 50	Ser	Phe	Xaa	Asp	Cys 55	Glu	Ser	Leu	Gln	Ala 60	Val	Phe	Asp	Pro
Ala 65	Ser	Cys	Pro	His	Met 70	Leu	Arg	Ala	Pro	Ala 75	Arg	Val	Leu	Gly	Glu 80
Ala	Val	Leu	Pro	Phe 85	Ser	Pro	Ala	Leu	Ala 90	Glu	Val	Thr	Leu	Gly 95	Ile
Gly	Arg	Gly	Ala 100	Gly	Ser	Ser	Trp	Xaa 105	Tyr	His	Glu	Glu	Glu 110	Ala	Asp
Ser	Thr	Ala 115	Lys	Ala	Met	Val	Thr 120	Glu	Met	Cys	Leu	Gly 125	Glu	Glu	Ası
Phe	Gln 130	Gln	Leu	Gln	Ala	Gln 135	Glu	Gly	Val	Ala	Ile 140	Thr	Phe	Суѕ	Lei
Lys 145	Glu	Phe	Arg	Gly	Leu 150	Leu	Ser	Phe	Ala	Glu 155	Ser	Ala	Asn	Leu	160
Leu	Ser	Ile	His	Phe 165	Asp	Ala	Pro	Gly	Arg 170	Pro	Ala	Ile	Phe	Thr 175	Ile
Lys	Asp	Ser	Leu 180	Leu	Asp	Gly	His	Phe 185	Val	Leu	Ala	Thr	Leu 190	Ser	Ası
Thr	Asp	Ser 195	His	Ser	Gln	Asp	Leu 200	Gly	Ser	Pro	Glu	Arg 205	His	Gln	Pro
Val	Pro 210	Gln	Leu	Gln	Ala	His 215	Ser	Thr	Pro	His	Pro 220	Asp	Asp	Phe	Ala
Asn 225	Asp	Asp	Ile	Asp	Ser 230	Tyr	Met	Ile	Ala	Met 235	Glu	Thr	Thr	Ile	G13
Asn	Glu	Gly	Ser	Arg 245	Val	Leu	Pro	Ser	Ile 250	Ser	Leu	Ser	Pro	Gly 255	Pro
Gln	Pro	Pro	Lys 260	Ser	Pro	Gly	Pro	His 265	Ser	Glu	Glu	Glu	Asp 270	Glu	Ala
Glu	Pro	Ser 275	Thr	Val	Pro	Gly	Thr 280	Pro	Pro	Pro	Lys	Lys 285	Phe	Arg	Sei

423

Leu Phe Phe Gly Ser Ile Leu Ala Pro Val Arg Ser Pro Gln Gly Pro 290 295 300

Ser Leu Cys Trp Arg Lys Thr Val Arg Val Lys Ala Glu Pro Arg Thr 305 310 315 320

<210> 473

<211> 331

<212> PRT

<213> Homo sapiens

<220>

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<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (299)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (324)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 473

Pro Pro Cys Ala Val Pro Gly Pro Arg Leu Ser Pro Lys Leu Arg Thr
1 5 10 15

Pro Ser Asn Ser Arg Glu Ser Xaa Ile Cys Val Ser Gly Arg Ala Glu 20 25 30

Ala Leu Thr Phe Arg His Gly Ala Glu Gly Ser Asp Arg Arg Gln 35 40

Arg Arg Glu Gly Val Leu Gly Pro Ala Leu Leu Cys Arg Pro Trp Glu 50 60

Val Leu Gly Ala His Glu Val Pro Ser Arg Asn Ile Phe Ser Glu Gln

65					70					75					80
Thr	Ile	Pro	Pro	Ser 85	Ala	Lys	Tyr	Gly	Gly 90	Arg	His	Thr	Val	Thr 95	Met
Ile	Pro	Gly	Asp 100	Gly	Ile	Gly	Pro	Glu 105	Leu	Met	Leu	His	Val 110	Lys	Ser
Val	Phe	Arg 115	His	Ala	Cys	Val	Pro 120	Val	Asp	Phe	Glu	Glu 125	Val	His	Val
Ser	Ser 130	Asn	Ala	Asp	Glu	Glu 135	Asp	Ile	Arg	Asn	Ala 140	Ile	Met	Ala	Ile
Arg 145	Arg	Asn	Arg	Val	Ala 150	Leu	Lys	Gly	Asn	Ile 155	Glu	Thr	Asn	His	Asn 160
Leu	Pro	Pro	Ser	His 165	Lys	Ser	Arg	Asn	Asn 170	Ile	Leu	Arg	Thr	Ser 175	Leu
Asp	Leu	Tyr	Ala 180	Asn	Val	Ile	His	Cys 185	Lys	Ser	Leu	Pro	Gly 190	Val	Val
Thr	Arg	His 195	Lys	Asp	Ile	Asp	11e 200	Leu	Ile	Val	Arg	Glu 205	Asn	Thr	Glu
Gly	Glu 210	Tyr	Ser	Ser	Leu	Glu 215	His	Glu	Ser	Val	Ala 220	Gly	Val	Val	Glu
Ser 225	Leu	Lys	Ile	Ile	Thr 230	Lys	Ala	Lys	Ser	Leu 235	Arg	Ile	Ala	Glu	Tyr 240
Ala	Phe	Lys	Leu	Ala 245	Gln	Glu	Ser	Gly	Arg 250	Lys	Lys	Val	Thr	Ala 255	Val
His	Lys	Ala	Asn 260	Ile	Met	Lys	Leu	Gly 265	Asp	Gly	Leu	Phe	Leu 270	Gln	Cys
Cys	Arg	Glu 275	Val	Ala	Ala	Arg	туr 280	Pro	Gln	Xaa	Thr	Phe 285	Glu	Asn	Met
Ile	Val 290	Asp	Asn	Thr	Thr	Met 295	Gln	Leu	Val	Xaa	Arg 300	Pro	Gln	Gln	Phe
Asp 305	Val	Met	Val	Met	Pro 310	Asn	Leu	Tyr	Gly	Asn 315	Ile	Val	Lys	Gln	Cys 320
Leu	Arg	Gly	Xaa	Gly 325	Arg	Gly	Pro	Lys	Leu 330	Val					

425

<210> 474 <211> 30 <212> PRT <213> Homo sapiens <400> 474 Thr Pro Ile Ser Thr Lys Asn Thr Lys Ile Ser Gln Ala Arg Trp Arg Ala His Val Val Pro Ala Thr Arg Glu Ala Asp Ala Glu Glu 25 <210> 475 <211> 124 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (110) <223> Xaa equals any of the naturally occurring L-amino acids <400> 475 Thr Gln Phe Ser Leu Ser Pro Val Glu Thr Ile Tyr Thr Ile Leu Cys 10 Ile Asn Val Tyr Thr Leu Pro Ile Cys Ile His Ile Tyr Ile Val Tyr 20 Ile Leu Tyr Met Tyr Arg Cys Val Tyr Val His Ile Tyr Thr His Ala His Asn Lys Ile Arg Cys Ser Leu Gln Ile Gln Met Leu Ile Thr Lys 55 Pro Asp Ala Thr Gln Thr Ala Ala Glu Glu Thr Arg Leu Asp Ser Cys 70 75 Asn Arg Ser Gln Lys Ile Lys Thr Ala Thr Cys Ser Asp Phe Gly His 90 Phe Cys Met Phe Ile Lys Asn Gly Phe Val Thr Arg Lys Xaa Arg Thr 100 105

Ser Val Ser Glu Lys Gly Arg Trp Gly Glu Pro Ser

120

426

<210> 476

<211> 64

<212> PRT

<213> Homo sapiens

<400> 476

Asn Gly Tyr Leu Val Phe Pro Arg Lys Asn Ser Phe Leu Leu Ile Phe 1 5 10 15

Gly Leu Phe Val Tyr Leu Glu Thr Asn Leu Asp Ser Leu Pro Leu Val 20 25 30

Asp Thr His Ser Lys Arg Thr Leu Leu Ile Lys Thr Val Glu Thr Arg
35 40 45

Asp Gly Gln Val Ile Asn Glu Thr Ser Gln His His Asp Asp Leu Glu 50 55 60

<210> 477

<211> 107

<212> PRT

<213> Homo sapiens

<400> 477

Val Leu Thr Val Asp Ala Arg Asn His Gly Asp Ser Pro His Ser Pro 1 5 10 15

Asp Met Ser Tyr Glu Ile Met Ser Gln Asp Leu Gln Asp Leu Leu Pro 20 25 30

Gln Leu Gly Leu Val Pro Cys Val Val Val Gly His Ser Met Gly Gly 35 40 45

Lys Thr Ala Met Leu Leu Ala Leu Gln Arg Pro Glu Leu Val Glu Arg 50 60

Leu Ile Ala Val Asp Ile Ser Pro Val Glu Ser Thr Gly Val Ser His 65 70 75 80

Phe Ala Thr Tyr Val Ala Ala Met Arg Ala Ile Asn Ile Ala Asp Arg $85 \hspace{1cm} 90 \hspace{1cm} 95$

Leu Ala Pro Leu Pro Cys Pro Lys Thr Gly Gly 100 105 427

<210> 478 <211> 282 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (281) <223> Xaa equals any of the naturally occurring L-amino acids <400> 478 Arg Glu Leu Gly Gly Thr Leu Leu Ser Ala Ile Glu Val Glu Gly Ala Lys Met Gln Ser Asn Lys Thr Phe Asn Leu Glu Lys Gln Asn His Thr Pro Arg Lys His His Gln His His Gln Gln Gln His His Gln Gln 40 Gln Gln Gln Pro Pro Pro Pro Ile Pro Ala Asn Gly Gln Gln 55 Ala Ser Ser Gln Asn Glu Gly Leu Thr Ile Asp Leu Lys Asn Phe Arg 70 Lys Pro Gly Glu Lys Thr Phe Thr Gln Arg Ser Arg Leu Phe Val Gly Asn Leu Pro Pro Asp Ile Thr Glu Glu Met Arg Lys Leu Phe Glu 100 105 Lys Tyr Gly Lys Ala Gly Glu Val Phe Ile His Lys Asp Lys Gly Phe 115 120 Gly Phe Ile Arg Leu Glu Thr Arg Thr Leu Ala Glu Ile Ala Lys Val 135 Glu Leu Asp Asn Met Pro Leu Arg Gly Lys Gln Leu Arg Val Arg Phe 145 150 155 Ala Cys His Ser Ala Ser Leu Thr Val Arg Asn Leu Pro Gln Tyr Val 170 Ser Asn Glu Leu Leu Glu Glu Ala Phe Ser Val Phe Gly Gln Val Glu Arg Ala Val Val Ile Val Asp Asp Arg Gly Arg Pro Ser Gly Lys Gly 195 200 205

428

Ile Val Glu Phe Ser Gly Lys Pro Ala Ala Arg Lys Ala Leu Asp Arg

220 210 215 Cys Ser Glu Gly Ser Phe Leu Leu Thr Thr Phe Pro Arg Pro Val Thr 230 225 235 Val Glu Pro Met Asp Gln Leu Asp Asp Glu Glu Gly Leu Pro Glu Lys 245 250 Leu Val Ile Lys Asn Gln Gln Phe His Lys Glu Arg Glu Gln Pro Pro 260 265 Arg Phe Ala Gln Pro Gly Ser Phe Xaa Val 275 280 <210> 479 <211> 289 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (206) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (215) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (218) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (285) <223> Xaa equals any of the naturally occurring L-amino acids <400> 479 Ala Val Pro Val Arg Asn Ser Arg Val Asp Pro Arg Val Arg Val Cys 5 Gly Pro Leu Ser Ala Pro Arg Gly Ser Arg Arg Pro Thr Val Pro Gly 20

Thr Pro Ala Cys Leu Ala Arg Pro Ala Ala Gln Gly Phe Ser Ala Ala

429

		35					40					45			
Leu	Pro 50	Val	Arg	Trp	Thr	Gly 55	Arg	Arg	Ala	Gly	Pro 60	Ser	Arg	Pro	Val
Pro 65	Ile	Gly	Thr	Pro	Ser 70	Arg	Ala	Ala	Asp	Pro 75	Ser	Gln	Gly	Glu	Met 80
Ser	Ala	Asp	Ala	Ala 85	Ala	Gly	Ala	Pro	Leu 90	Pro	Arg	Leu	Cys	Cys 95	Leu
Glu	Lys	Gly	Pro 100	Asn	Gly	Tyr	Gly	Phe 105	His	Leu	His	Gly	Glu 110	Lys	Gly
Lys	Leu	Gly 115	Gln	Tyr	Ile	Arg	Leu 120	Val	Glu	Pro	Gly	Ser 125	Pro	Ala	Glu
Lys	Ala 130	Gly	Leu	Leu	Ala	Gly 135	Asp	Arg	Leu	Val	Glu 140	Val	Asn	Gly	Glu
Asn 145	Val	Glu	Lys	Glu	Thr 150	His	Gln	Gln	Val	Val 155	Ser	Arg	Ile	Arg	Ala 160
Ala	Leu	Asn	Ala	Val 165	Arg	Leu	Leu	Val	Val 170	Asp	Pro	Glu	Thr	Asp 175	Glu
Gln	Leu	Gln	Lys 180	Leu	Gly	Val	Gln	Val 185	Arg	Glu	Glu	Leu	Leu 190	Arg	Ala
Gln	Glu	Ala 195	Pro	Gly	Gln	Ala	Glu 200	Pro	Pro	Ala	Ala	Ala 205	Xaa	Val	Gln
Gly	Ala 210	Gly	Asn	Glu	Asn	Xaa 215	Pro	Arg	Xaa	Ala	Asp 220	Lys	Ser	His	Pro
Glu 225	Gln	Arg	Glu	Leu	Arg 230	Pro	Arg	Leu	Cys	Thr 235	Met	Lys	Lys	Gly	Pro 240
Ser	Gly	Tyr	Gly	Phe 245	Asn	Leu	His	Ser	Asp 250	Lys	Ser	Lys	Pro	Gly 255	Gln
Phe	Ile	Arg	Ser 260	Val	Asp	Pro	Asp	Ser 265	Pro	Ala	Glu	Ala	Ser 270	Gly	Leu
Arg	Ala	Gln 275	Asp	Arg	Ile	Val	Glu 280	Val	Met	Leu	Leu	Xaa 285	Ser	Leu	Pro

Ile

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<210> 480
<211> 44
<212> PRT
<213> Homo sapiens
<400> 480
Gly Ser Thr His Ala Ser Gly Arg Asn Glu Gly Pro Pro Ala Lys Thr
Lys Ser Trp Val Gly Pro Thr Leu His Phe His Arg Lys Ser Glu His
             20
Leu Val Gly Leu Lys Val Leu Cys Cys Phe Arg Leu
         35
                             40
<210> 481
<211> 124
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
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Ser Ile Xaa His Xaa Arg Lys Xaa Xaa Xaa Thr Val Arg Ser Asp Ser
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                  5
                                     10
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WO 00/55173

431

PCT/US00/05881

Arg Val Asp Pro Arg Ser Asp Asp Phe Thr Pro Leu Glu Ile Leu Trp Thr Phe Ser Ile Tyr Leu Glu Ser Val Ala Ile Leu Pro Gln Leu Phe 40 Met Val Ser Lys Thr Gly Glu Ala Glu Thr Ile Thr Ser His Tyr Leu 55 Phe Ala Leu Gly Val Tyr Arg Thr Leu Tyr Leu Phe Asn Trp Ile Trp 70 75 Arg Tyr His Phe Glu Gly Phe Phe Asp Leu Ile Ala Ile Val Ala Gly 90 Leu Val Gln Thr Val Leu Tyr Cys Asp Phe Phe Tyr Leu Tyr Ile Thr 105 Lys Val Leu Lys Gly Lys Lys Leu Ser Leu Pro Ala 115 120 <210> 482 <211> 131 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (122) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (124) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (127) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (131) <223> Xaa equals any of the naturally occurring L-amino acids <400> 482 Cys Ser Ser Arg Gly Ala His His Ser His Cys Asp Arg Leu Pro His

432

10 15 Ser Pro Trp Pro Gly Leu Arg Glu Val Glu Leu Leu Ala Ser Val His 25 Thr Glu Gln Met Glu Glu Glu Leu Ala Leu Gly Pro Arg Gly Gln Gly Gly Ala Ser Leu Ala Gly Arg Asp Gly Arg Ser Ala Gly Ala Gly Ser 55 Tyr Gly Ala Leu Ala Asn Ser Ala Trp Gly Gly Pro Arg Lys Val Ala Ser Ala Ser Ala Ala Ser Thr Leu Ser Glu Pro Pro Arg Arg Thr 85 90 Gln Glu Ser Arg Thr Arg Thr Arg Ala Leu Gly Leu Pro Thr Leu Pro 105 Met Glu Lys Leu Ala Ala Ser Asn Arg Xaa Pro Xaa Gly Leu Xaa Gly Pro Gly Xaa 130 <210> 483 <211> 221 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (168) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (174) <223> Xaa equals any of the naturally occurring L-amino acids <400> 483 Lys Lys Pro Pro Ile Thr His Pro Ser Thr Pro Ala Glu Glu Thr Tyr . Asn Leu Gly Arg Gln Val Leu Pro Leu Ser Ala Val Thr Tyr Phe Gln 20 25

Lys Ser Gly Pro Gly Leu Leu Pro Ala Pro Ala Thr Gln Ser Ala Ser

35 40 45 Val Ala Gly Thr Leu Gln Asn Ser Leu Cys Ser Gln Val Thr Lys Lys 55 Lys Arg Ala Asn Met Leu Val Leu Leu Ala Gly Ile Phe Val Val His 75 70 Ile Ala Thr Val Ile Met Leu Phe Val Ser Thr Ile Ala Asn Val Trp 85 90 Leu Val Ser Asn Thr Val Asp Ala Ser Val Gly Leu Trp Lys Asn Cys Thr Asn Ile Ser Cys Ser Asp Ser Leu Ser Tyr Ala Ser Glu Asp Ala Leu Lys Thr Val Gln Ala Phe Met Ile Leu Ser Ile Ile Phe Cys Val 135 140 Ile Ala Leu Leu Val Phe Val Phe Gln Leu Phe Thr Met Glu Lys Gly 150 155 Asn Arg Phe Phe Leu Ser Gly Xaa Thr Thr Leu Val Cys Xaa Leu Cys 165 170 Ile Leu Val Gly Cys Pro Ser Thr Leu Val Ile Met Arg Ile Val Met 185 Glu Arg Ile Cys Thr Thr Ala Ile Pro Thr Ser Trp Ala Gly Ser Ala 200 Ser Ala Ser Ala Ser Ser Ser Ala Phe Ser Ile Trp Ser 210 215 220 <210> 484 <211> 382 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (22) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<223> Xaa equals any of the naturally occurring L-amino acids

<221> SITE <222> (54)

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<400> 484
Thr Lys Leu Trp Thr Leu Val Ser Asn Pro Asp Thr Asp Ala Leu Ile
                                     10
Cys Trp Ser Pro Ser Xaa Asn Ser Phe His Val Phe Asp Gln Gly Gln
                                 25
Phe Ala Lys Glu Val Leu Pro Lys Tyr Phe Lys His Asn Asn Met Ala
                             40
Ser Phe Val Arg Gln Xaa Asn Met Tyr Gly Phe Arg Lys Val Val His
Ile Glu Gln Gly Xaa Leu Val Lys Pro Glu Arg Asp Asp Thr Glu Phe
                     70
                                         75
Gln His Pro Cys Phe Leu Arg Gly Gln Glu Gln Leu Leu Glu Asn Ile
                 85
                                     90
Lys Arg Lys Val Thr Ser Val Ser Thr Leu Lys Ser Glu Asp Ile Lys
            100
                                105
Ile Arg Gln Asp Ser Val Thr Lys Leu Leu Thr Asp Val Gln Leu Met
                            120
```

Lys	Gly 130	Lys	Gln	Glu	Cys	Met 135	Asp	Ser	Lys	Leu	Leu 140	Ala	Met	Lys	HIS
Glu 145	Asn	Glu	Ala	Leu	Trp 150	Arg	Glu	Val	Ala	Ser 155	Leu	Arg	Gln	Lys	His 160
Ala	Gln	Gln	Gln	Lys 165	Val	Val	Asn	Lys	Leu 170	Ile	Gln	Phe	Leu	11e 175	Ser
Leu	Val	Gln	Ser 180	Asn	Arg	Ile	Leu	Gly 185	Val	Lys	Arg	Lys	11e 190	Pro	Leu
Met	Leu	Asn 195	Asp	Ser	Gly	Ser	Ala 200	His	Ser	Met	Pro	Lys 205	Tyr	Ser	Arg
Gln	Phe 210	Ser	Leu	Glu	His	Val 215	His	Gly	Ser	Gly	Pro 220	туг	Ser	Ala	Pro
Ser 225	Pro	Ala	Tyr	Ser	Ser 230	Ser	Ser	Leu	Tyr	Ala 235	Pro	Asp	Ala	Val	Ala 240
Ser	Ser	Gly	Pro	11e 245	Ile	Ser	Asp	Ile	Thr 250	Glu	Leu	Ala	Pro	Ala 255	Ser
Pro	Met	Ala	Ser 260	Pro	Gly	Gly	Ser	11e 265	Asp	Glu	Arg	Pro	Leu 270	Ser	Ser
Ser	Pro	Leu 275	Val	Arg	Val	Lys	Glu 280	Glu	Pro	Pro	Ser	Pro 285	Pro	Xaa	Ser
Pro	Arg 290	Val	Glu	Glu	Ala	Ser 295	Pro	Gly	Xaa	Pro	Ser 300	Ser	Val	Asp	Thr
Leu 305	Leu	Ser	Pro	Thr	Ala 310	Leu	Ile	Asp	Ser	11e 315	Leu	Arg	Glu	Ser	Glu 320
Pro	Ala	Pro	Xaa	Ser 325	Val	Thr	Ala	Leu	Thr 330	Asp	Ala	Arg	Gly	His 335	Thr
Asp	Thr	Glu	Gly 340	Arg	Pro	Pro	Ser	Pro 345	Pro	Pro	Thr	Ser	Thr 350	Pro	Glu
Lys	Cys	Leu 355	Ser	Val	Xaa	Ala	Trp 360	Thr	Arg	Met	Ser	Ser 365	Val	Thr	Thr
Trp	Met 370	Leu	Trp	Thr	Pro	Thr 375	Trp	Ile	Thr	Cys	Arg 380	Pro	Cys		

<211> 416 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (399) <223> Xaa equals any of the naturally occurring L-amino acids Pro Ser Val Ala Asn Val Gly Ser His Cys Asp Leu Ser Leu Lys Ile 10 Pro Glu Ile Ser Ile Gln Asp Met Thr Ala Gln Val Thr Ser Pro Ser 25 Gly Lys Thr His Glu Ala Glu Ile Val Glu Gly Glu Asn His Thr Tyr Cys Ile Arg Phe Val Pro Ala Glu Met Gly Thr His Thr Val Ser Val 55 Lys Tyr Lys Gly Gln His Val Pro Gly Ser Pro Phe Gln Phe Thr Val 75 70 Gly Pro Leu Gly Glu Gly Gly Ala His Lys Val Arg Ala Gly Gly Pro 85 90 Gly Leu Glu Arg Ala Glu Ala Gly Val Pro Ala Glu Phe Ser Ile Trp 105 Thr Arg Glu Ala Gly Ala Gly Leu Ala Ile Ala Val Glu Gly Pro Ser Lys Ala Glu Ile Ser Phe Glu Asp Arg Lys Asp Gly Ser Cys Gly 135 Val Ala Tyr Val Val Gln Glu Pro Gly Asp Tyr Glu Val Ser Val Lys 150 155 Phe Asn Glu Glu His Ile Pro Asp Ser Pro Phe Val Val Pro Val Ala 165 170 Ser Pro Ser Gly Asp Ala Arg Arg Leu Thr Val Ser Ser Leu Gln Glu 185 Ser Gly Leu Lys Val Asn Gln Pro Ala Ser Phe Ala Val Ser Leu Asn 200 Gly Ala Lys Gly Ala Ile Asp Ala Lys Val His Ser Pro Ser Gly Ala

215

437

Leu Glu Glu Cys Tyr Val Thr Glu Ile Asp Gln Asp Lys Tyr Ala Val 225 230 Arg Phe Ile Pro Arg Glu Asn Gly Val Tyr Leu Ile Asp Val Lys Phe Asn Gly Thr His Ile Pro Gly Ser Pro Phe Lys Ile Arg Val Gly Glu Pro Gly His Gly Gly Asp Pro Gly Leu Val Ser Ala Tyr Gly Ala Gly 280 Leu Glu Gly Gly Val Thr Gly Asn Pro Ala Glu Phe Val Val Asn Thr 295 Ser Asn Ala Gly Ala Gly Ala Leu Ser Val Thr Ile Asp Gly Pro Ser 310 315 Lys Val Lys Met Asp Cys Gln Glu Cys Pro Glu Gly Tyr Arg Val Thr Tyr Thr Pro Met Ala Pro Gly Ser Tyr Leu Ile Ser Ile Lys Tyr Gly 345 Gly Pro Tyr His Ile Gly Gly Ser Pro Phe Lys Ala Lys Val Thr Gly 355 360 Pro Arg Leu Val Ser Asn His Ser Leu His Glu Thr Ser Ser Val Phe 375 Val Asp Ser Leu Thr Lys Ala Thr Cys Ala Pro Gln His Gly Xaa Pro 390 Gly Pro Gly Pro Ala Asp Ala Ser Lys Val Val Ala Lys Gly Trp Gly

<210> 486

<211> 46

<212> PRT

<213> Homo sapiens

<400> 486

Phe Val Thr Ser Gly Lys Ile Ser Leu Tyr Val Tyr Ile Leu Thr Ile

1 10 15

438

Arg Leu Asp Thr Asn Lys Ala Thr Leu Leu Thr Ala Ser Gly Glu Leu 20 . 25 30

Ile Leu Phe Leu Ile Phe Phe Asn Lys Asp Ile Leu Arg Tyr 35 40 45

<210> 487

<211> 162

<212> PRT

<213> Homo sapiens

<400> 487

Leu Gly Val Ala Leu Gly Ala Val Pro Lys Leu His Leu Gly Val Leu 1 5 10 15

Val Ser Thr Gly Leu Arg Thr Ala Val Gly Ser Pro Arg Leu Pro Pro 20 25 30

Thr Ala Leu Gly Ala Ala Tyr Gly Thr Ala Lys Ser Gly Thr Gly Ile 35 40 45

Ala Ala Met Ser Val Met Arg Pro Glu Gln Ile Met Lys Ser Ile Ile 50 55 60

Pro Val Val Met Ala Gly Ile Ile Ala Ile Tyr Gly Leu Val Val Ala 65 70 75 80

Val Leu Ile Ala Asn Ser Leu Asn Asp Asp Ile Ser Leu Tyr Lys Ser 85 90 95

Phe Leu Gln Leu Gly Ala Gly Leu Ser Val Gly Leu Ser Gly Leu Ala 100 105 110

Ala Gly Phe Ala Ile Gly Ile Val Gly Asp Ala Gly Val Arg Gly Thr 115 120 125

Ala Gln Gln Pro Arg Leu Phe Val Gly Met Ile Leu Ile Phe 130 135 140

Thr Lys

<210> 488

<211> 114

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<212> PRT
<213> Homo sapiens
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<220>
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<220>
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<222> (113)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 488
Gln Ala Leu Arg Pro Gly Ser Phe Arg Gly Thr Gly Arg Lys Arg Glu
                                    10
Arg Glu Arg Glu Arg Met Ser Leu Ser Asp Trp His Leu Ala Val Lys
Leu Ala Asp Gln Pro Leu Ala Pro Lys Ser Ile Leu Gln Leu Pro Glu
Ser Glu Leu Gly Glu Tyr Ser Leu Gly Gly Tyr Ser Ile Ser Phe Leu
     50
                         55
                                         . 60
Lys Gln Leu Ile Ala Gly Lys Leu Gln Glu Ser Val Pro Asp Pro Glu
                   70
Leu Ile Asp Leu Ile Tyr Cys Gly Arg Lys Leu Lys Asp Asp Xaa Thr
                                    90
```

Leu Thr Ser Thr Val Phe Asn Leu Ala Pro His Pro Cys Ser Xaa Glu

105

Xaa Leu

<210> 489 <211> 149

<212> PRT

<213> Homo sapiens

100

<220>

<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 490

Arg Arg Arg Ser Arg Gly Leu Ile Pro Gly Arg Ala Pro Gly Arg Arg 10

Arg Pro Arg Ala His Glu Val Ala Arg Ala Pro Pro Pro Ile Ala Met

Asp Arg Met Lys Lys Ile Lys Arg Gln Leu Ser Met Thr Leu Arg Gly

Gly Arg Gly Ile Asp Lys Thr Asn Gly Ala Pro Glu Gln Ile Gly Leu 50

Asp Glu Ser Gly Gly Gly Gly Ser Asp Pro Gly Glu Ala Pro Thr

Arg Ala Ala Pro Gly Glu Leu Arg Ser Ala Arg Gly Pro Leu Ser Ser 90

Ala Pro Glu Ile Val His Glu Asp Leu Lys Met Gly Ser Asp Gly Glu 100

Ser Asp Gln Ala Ser Ala Thr Ser Ser Asp Glu Val Gln Ser Pro Val 120

Arg Val Arg Met Arg Asn His Pro Pro Arg Lys Ile Ser Thr Glu Asp 130 135

Ile Asn Lys Arg Leu Ser Leu Pro Ala Asp Ile Arg Leu Pro Glu Gly 150

Tyr Leu Glu Lys Leu Thr Leu Asn Ser Pro Ile Phe Asp Lys Pro Leu 170

Ser Arg Arg Leu Arg Arg Val Ser Leu Ser Glu Ile Gly Phe Gly Lys 180

Leu Glu Thr Tyr Ile Lys Leu Asp Lys Leu Gly Glu Gly Thr Tyr Ala 200

Thr Val Tyr Lys Gly Lys Ser Lys Leu Thr Asp Asn Leu Val Ala Leu 215

Lys Glu Ile Arg Leu Glu His Glu Glu Gly Ala Pro Cys Thr Ala Ile 225

Arg Glu Val Ser Leu Leu Lys Asp Leu Lys His Ala Asn Ile Val Thr 250

Leu His Asp Ile Ile His Thr Glu Lys Ser Leu Thr Leu Val Phe Glu

			260					265					270		
Тyr	Leu	Asp 275	Lys	Asp	Leu	Lys	Gln 280	Tyr	Leu	Asp	Asp	Cys 285	Gly	Asn	Ile
Ile	Asn 290		His	Asn	Val	Lys 295	Leu	Phe	Leu	Phe	Gln 300	Leu	Leu	Arg	Gly
Leu 305		Tyr	Cys	His	Arg 310	Xaa	Lys	Val	Leu	His 315	Arg	Asp	Leu	Lys	Pro 320
Gln	Asn	Leu	Leu	Ile 325	Asn	Glu	Arg	Gly	Glu 330	Leu	Lys	Leu	Ala	Asp 335	Phe
Gly	Leu	Ala	Arg 340	Ala	Lys	Ser	Ile	Pro 345	Thr	Lys	Thr	туг	Ser 350	Asn	Glu
Val	Val	Thr 355	Leu	Trp	Tyr	Arg	Pro 360	Pro	Asp	Ile	Leu	Leu 365	Gly	Ser	Thr
Asp	Tyr 370	Ser	Thr	Gln	Ile	Asp 375	Met	Trp	Gly	Val	Gly 380	Cys	Ile	Phe	Tyr
Glu 385	Met	Ala	Thr	Gly	Arg 390	Pro	Leu	Phe	Pro	Gly 395	Ser	Thr	Val	Glu	Glu 400
Gln	Leu	His	Phe	Ile 405	Phe	Arg	Ile	Leu	Gly 410	Thr	Pro	Thr	Glu	Glu 415	Thr
Trp	Pro	Gly	Ile 420	Leu	Ser	Asn	Glu	Glu ⁻ 425	Phe	Lys	Thr	Tyr	Asn 430	туг	Pro
Lys	Tyr	Arg 435	Ala	Glu	Ala	Leu	Leu 440	Ser	His	Ala	Pro	Arg 445	Leu	Asp	Ser
Asp	Gly 450	Ala	Asp	Leu	Leu	Thr 455	Lys	Leu	Leu	Gln	Phe 460	Glu	Gly	Arg	Asn
Arg 465	Ile	Ser	Ala	Glu	Asp 470	Ala	Met	Lys	His	Pro 475	Phe	Phe	Leu	Ser	Leu 480
Gly	Glu	Arg	Ile	His 485	Lys	Leu	Pro	Asp	Thr 490	Thr	Ser	Ile	Phe	Ala 495	Leu
Lys	Glu	Ile	Gln 500	Leu	Gln	Lys	Glu	Ala 505	Ser	Leu	Arg	Ser	Ser 510	Ser	Met
Pro	Asp	Ser 515	Gly	Arg	Pro	Ala	Phe 520	Arg	Val	Val	Asp	Thr 525	Glu	Phe	

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<220> <221> SITE <222> (49)

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<210> 491
<211> 125
<212> PRT
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<222> (125)
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Cys Thr Arg Ala His Pro Lys Asn Leu Val Glu Lys Gly Ile Leu Thr
Thr Glu Lys Gln Asn Phe Leu Leu Phe Asp Met Thr Thr His Pro Val
                  25
Thr Asn Thr Thr Glu Lys Gln Arg Leu Val Lys Lys Leu Gln Asp Ser
                            40
Val Leu Glu Arg Trp Val Asn Asp Pro Gln Arg Met Asp Lys Arg Thr
Leu Ala Leu Leu Val Leu Ala His Ser Ser Asp Val Leu Glu Asn Val
65
                    70
Phe Ser Ser Leu Thr Asp Asp Lys Tyr Asp Val Ala Met Asn Arg Ala
                                    90
Lys Asp Leu Val Glu Leu Asp Pro Glu Val Glu Gly Thr Lys Pro Ser
                               105
Ala Thr Glu Met Ile Trp Ala Val Leu Ala Ala Phe Xaa
       115
                           120
                                              125
<210> 492
<211> 53
<212> PRT
<213> Homo sapiens
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 492
Val Ser Xaa Ser Ile Leu Ala Leu Leu Phe Asn Thr Asp Ala Leu Phe
Ser Arg Val Tyr Glu Ser Leu Ser Asp Asn His Gly Leu Gln Glu Gln
             20
                                  25
Thr Val Glu Lys Leu Phe Phe Gln Trp Lys Ser Trp Val Gln Glu Met
                              40
Xaa Gly Xaa Leu Lys
     50
<210> 493
<211> 82
<212> PRT
<213> Homo sapiens
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<222> (67)
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<220>
<221> SITE
<222> (68)
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<220>
<221> SITE
<222> (78)
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<220>
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<400> 493 Pro Gly Phe Phe Gln Met Leu Val His Thr Tyr Ser Ser Met Asp 10 Arg His Asp Gly Val Pro Ser His Ser Ser Arg Leu Ser Gln Leu Gly Ser Val Ser Gln Gly Pro Tyr Ser Ser Ala Pro Pro Leu Ser His Thr Pro Ser Ser Asp Phe Gln Pro Pro Tyr Phe Pro Xaa Pro Tyr Gln Pro 50 55 Leu Pro Xaa Xaa Gln Ser Gln Asp Pro Tyr Ser His Val Xaa Xaa Pro 70 Tyr Pro <210> 494 <211> 290 <212> PRT .<213> Homo sapiens <400> 494 Tyr Lys Asp Trp Leu Thr Lys Met Ser Gly Lys His Asp Val Gly Ala 5 Tyr Met Leu Met Tyr Lys Gly Ala Asn Arg Thr Glu Thr Val Thr Ser Phe Arg Lys Arg Glu Ser Lys Val Pro Ala Asp Leu Leu Lys Arg Ala Phe Val Arg Met Ser Thr Ser Pro Glu Ala Phe Leu Ala Leu Arg Ser 50 55 60 His Phe Ala Ser Ser His Ala Leu Ile Cys Ile Ser His Trp Ile Leu Gly Ile Gly Asp Arg His Leu Asn Asn Phe Met Val Ala Met Glu Thr 90 Gly Gly Val Ile Gly Ile Asp Phe Gly His Ala Phe Gly Ser Ala Thr

105

125

Gln Phe Leu Pro Val Pro Glu Leu Met Pro Phe Arg Leu Thr Arg Gln

120

100

446

Phe Ile Asn Leu Met Leu Pro Met Lys Glu Thr Gly Leu Met Tyr Ser 135 140 Ile Met Val His Ala Leu Arg Ala Phe Arg Ser Asp Pro Gly Leu Leu 155 Thr Asn Thr Met Asp Val Phe Val Lys Glu Pro Ser Phe Asp Trp Lys 170 Asn Phe Glu Gln Lys Met Leu Lys Lys Gly Gly Ser Trp Ile Gln Glu 185 Ile Asn Val Ala Glu Lys Asn Trp Tyr Pro Arg Gln Lys Ile Cys Tyr 200 Ala Lys Arg Lys Leu Ala Gly Ala Asn Pro Ala Val Ile Thr Cys Asp 215 Glu Leu Leu Gly His Glu Lys Ala Pro Ala Phe Arg Asp Tyr Val 235 Ala Val Ala Arg Gly Ser Lys Asp His Asn Ile Arg Ala Gln Glu Pro 245 250 Glu Ser Gly Leu Ser Glu Glu Thr Gln Val Lys Cys Leu Met Asp Gln 265 Ala Thr Asp Pro Asn Ile Leu Gly Arg Thr Trp Glu Gly Trp Glu Pro 280 . Trp Met 290 <210> 495 <211> 156 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (148) <223> Xaa equals any of the naturally occurring L-amino acids <400> 495 Cys Gln Ser His Pro Leu Pro Gly Gly Pro Ala Cys Pro Cys Leu Ala Cys His Ile Thr Leu Leu Phe Gly Arg Pro Trp Leu Ile Lys Glu Val

447

20 25 Leu Val Val Ser Gln Ala Lys Trp Asn Leu Glu Thr Val Lys Lys Val 40 Gln Ile Thr Leu Asn Cys Ile Gln Glu Val His Phe Phe Pro Ile Val Arg Gly Ser Trp Ser Leu Arg Asp Ala Arg Leu Glu Ser Asp Tyr Ile Ile Ile Gln Asn Gly Asn Ser Gln Gly Asn Ala Phe Phe His Phe Ile 90 Arg Phe Phe Tyr Pro His Cys Thr Pro Ser Pro Ser Pro Leu Pro Ile 105 Trp Met Ala Ser Gln Lys Leu Gly Pro Ser Pro Pro Cys Leu Gly Gly 120 Gly Gln Ser Pro Leu Thr Ala Glu Ala Ala Leu Leu Ser Ser Ala Val 130 135 Leu Pro Leu Xaa Lys Cys Leu Gln Arg Val Met Ser 150 <210> 496 <211> 251 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (42) <223> Xaa equals any of the naturally occurring L-amino acids <400> 496 Glu Glu Leu Leu Arg Ala Gln Glu Ala Pro Gly Gln Ala Glu Pro Pro 5 10 Ala Ala Ala Glu Val Gln Gly Ala Gly Asn Glu Asn Glu Pro Arg Glu

Ala Asp Lys Ser His Pro Glu Gln Arg Xaa Leu Arg Pro Arg Leu Cys
35 40 45

Thr Met Lys Lys Gly Pro Ser Gly Tyr Gly Phe Asn Leu His Ser Asp

55

448

PCT/US00/05881

Lys Ser Lys Pro Gly Gln Phe Ile Arg Ser Val Asp Pro Asp Ser Pro Ala Glu Ala Ser Gly Leu Arg Ala Gln Asp Arg Ile Val Glu Val Asn Gly Val Cys Met Glu Gly Lys Gln His Gly Asp Val Val Ser Ala Ile 105 Arg Ala Gly Gly Asp Glu Thr Lys Leu Leu Val Val Asp Arg Glu Thr 115 120 125 Asp Glu Phe Phe Lys Lys Cys Arg Val Ile Pro Ser Gln Glu His Leu 135 Asn Gly Pro Leu Pro Val Pro Phe Thr Asn Gly Glu Ile Gln Lys Glu 150 155 Asn Ser Arg Glu Ala Leu Ala Glu Ala Ala Leu Glu Ser Pro Arg Pro 165 Ala Leu Val Arg Ser Ala Ser Ser Asp Thr Ser Glu Glu Leu Asn Ser 185 Gln Asp Ser Pro Pro Lys Gln Asp Ser Thr Ala Pro Ser Ser Thr Ser 195 200 205 Ser Ser Asp Pro Ile Leu Asp Phe Asn Ile Ser Leu Ala Met Ala Lys 215 Glu Arg Ala His Gln Lys Arg Ser Ser Lys Arg Ala Pro Gln Met Asp 230 235 Trp Ser Lys Lys Asn Glu Leu Phe Ser Asn Leu 245

<210> 497

<211> 48

<212> PRT

<213> Homo sapiens

<400> 497

Asn Gly Ala Glu Ala Val Ser Thr Glu Ala Lys Met Thr Ala Phe Pro 1 5 10 15

Asp Trp Pro Trp Leu Phe His Thr Leu Cys Asp Pro Cys Pro Met Thr 20 25 30

Leu Trp Leu Thr Leu Pro Glu Ala Met Thr Thr Ala Ala Phe Cys His

35 40 45

449

PCT/US00/05881

<210> 498 <211> 373 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (337) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (372) <223> Xaa equals any of the naturally occurring L-amino acids <400> 498 Gly Thr Arg Gly Ser Arg Ala Ser Gly Val Cys Ala Arg Gly Cys Leu Asp Ser Ala Gly Pro Trp Thr Met Ser Arg Ala Leu Arg Pro Pro Leu 20 Pro Pro Leu Cys Phe Phe Leu Leu Leu Leu Ala Ala Gly Ala Arg Ala Gly Gly Tyr Glu Thr Cys Pro Thr Val Gln Pro Asn Met Leu Asn 55 Val His Leu Leu Pro His Thr His Asp Asp Val Gly Trp Leu Lys Thr 65 75 Val Asp Gln Tyr Phe Tyr Gly Ile Lys Asn Asp Ile Gln His Ala Gly

His Gln Gln Thr Asn Ala Thr Gln Glu Val Val Arg Asp Leu Val Arg

Val Gln Tyr Ile Leu Asp Ser Val Ile Ser Ala Leu Leu Ala Asp Pro

Thr Arg Arg Phe Ile Tyr Val Glu Ile Ala Phe Phe Ser Arg Trp Trp

105

100

115

Gln Gly Arg Leu Glu Phe Ala Asn Gly Gly Trp Val Met Asn Asp Glu

450

145					150					155					160
Ala	Ala	Thr	His	Tyr 165	Gly	Ala	Ile	Val	Asp 170	Gln	Met	Thr	Leu	Gly 175	Leu
Arg	Phe	Leu	Glu 180	Asp	Thr	Phe	Gly	Asn 185	Asp	Gly	Arg	Pro	Arg 190	Val	Ala
Trp	His	11e 195	Asp	Pro	Phe	Gly	His 200	Ser	Arg	Glu	Gln	Ala 205	Ser	Leu	Phe
Ala	Gln 210	Met	Gly	Phe	Asp	Gly 215	Phe	Phe	Phe	Gly	Arg 220	Leu	Asp	Tyr	Gln
Asp 225	Lys	Trp	Val	Arg	Met 230	Gln	Lys	Leu	Glu	Met 235	Glu	Gln	Val	Trp	Arg 240
Ala	Ser	Thr	Ser	Leu 245	Lys	Pro	Pro	Thr	Ala 250	Asp	Leu	Phe	Thr	Gly 255	Val
Leu	Pro	Asn	Gly 260	Tyr	Asn	Pro	Pro	Arg 265	Asn	Leu	Cys	Trp	Asp 270	Val	Leu
Cys	Val	Asp 275	Gln	Pro	Leu	Val	Glu 280	Asp	Pro	Arg	Ser	Pro 285	Glu	Туr	Asn
Ala	Lys 290	Glu	Leu	Val	Asp	Tyr 295	Phe	Leu	Asn	Val	Ala 300	Thr	Ala	Gln	Gly
Arg 305	Tyr	Tyr	Arg	Thr	Asn 310	His	Thr	Val	Met	Thr 315	Met	Gly	Ser	Asp	Phe 320
Gln	Tyr	Glu	Asn	Ala 325	Asn	Met	Trp	Phe	Lys 330	Asn	Leu	Asp	Lys	Leu 335	Ile
Xaa	Leu	Val	Asn 340	Ala	Gln	Gly	Lys	Arg 345	Lys	Gln	Cys	Pro	Cys 350	Ser	Leu
Leu	His	Pro 355	Arg	Leu	Leu	Pro	Leu 360	Gly	Ala	Glu	Gln	Gly 365	Gln	Pro	His
Leu	Val	Ser	Xaa	Thr											

<210> 499

370

<211> 238

<212> PRT

<213> Homo sapiens

	0> 49														
Ala 1	Leu	Pro	Gly	Pro 5	Asp	Trp	His	Gly	Ala 10	Gly	Ala	Ala	Asp	Arg 15	Gly
Pro	Ala	Ala	Pro 20	Pro	Arg	Pro	Gly	Pro 25	Суз	Ala	Tyr	Ala	Ala 30	His	Gly
Arg	Gly	Ala 35	Leu	Ala	Glu	Ala	Ala 40	Arg	Arg	Суз	Leu	His 45	Asp	Įle	Ala
Leu	Ala 50	His	Arg	Ala	Ala	Thr 55	Ala	Ala	Arg	Pro	Pro 60	Ala	Pro	Pro	Pro
Ala 65	Pro	Gln	Pro	Pro	Ser 70	Pro	Thr	Pro	Ser	Pro 75	Pro	Arg	Pro	Thr	Leu 80
Ala	Arg	Glu	Asp	Asn 85	Glu	Glu	Asp	Glu	Asp 90	Glu	Pro	Thr	Glu	Thr 95	Glu
Thr	Ser	Gly	Glu 100	Gln	Leu	Gly	Ile	Ser 105	Asp	Asn	Gly	Gly	Leu 110	Phe	Val
Met	Asp	Glu 115	Asp	Ala	Thr	Leu	Gln 120	Asp	Leu	Pro	Pro	Phe 125	Cys	Glu	Ser
Asp	Pro 130	Glu	Ser	Thr	Asp	Asp 135	Gly	Ser	Leu	Ser	Glu 140	Glu	Thr	Pro	Ala
Gly 145	Pro	Pro	Thr	Cys	Ser 150	Val	Pro	Pro	Ala	Ser 155	Ala	Leu	Pro	Thr	Gln 160
Gln	Tyr	Ala	Lys	Ser 165		Pro	Val	Ser	Val 170	Pro	Val	Trp	Gly	Phe 175	Lys
Glu	Lys	Arg	Thr 180	Glu	Ala	Arg	Ser	Ser 185	Asp	Glu	Glu	Asn	Gly 190	Pro	Pro
Ser	Ser	Pro 195	Asp	Leu	Asp	Arg	11e 200	Ala	Ala	Ser	Met	Arg 205	Ala	Leu	Val
Leu	Arg 210	Glu	Ala	Glu	Asp	Thr 215	Gln	Val	Phe	Gly	Asp 220	Leu	Pro	Arg	Pro
Arg	Leu	Asn	Thr	Ser	Asp	Phe	Gln	Lys	Leu	Lys	Arg	Lys	Tyr		

<210> 500 <211> 198

225 230

<212> PRT

452

<213> Homo sapiens <220> <221> SITE <222> (94) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (156) <223> Xaa equals any of the naturally occurring L-amino acids <400> 500 Asn Ser Ala Glu Leu Ser Pro Gly Leu Cys Ser Pro Thr Pro Thr Glu Ala Arg Ala Gly Asp Ala Gly Pro Ala Ala Arg Ser Arg Lys Gln Asn 25 Pro Gln Ser Pro Pro Cys Cys Cys Val Asp Asp Thr Trp Ala Gln Ala Glu Val Gly Pro Val Thr Ser Cys Thr Gly Phe Val Glu Gly Ser Ser 50 Arg Thr Gly Gly Met Gly Ser Ala Cys Ile Lys Val Thr Lys Tyr Phe 70 Leu Phe Leu Phe Asn Leu Ile Phe Phe Ile Leu Gly Ala Xaa Ile Leu 90 Gly Phe Gly Val Trp Ile Leu Ala Asp Lys Ser Ser Phe Ile Ser Val Leu Gln Thr Ser Ser Ser Leu Arg Met Gly Ala Tyr Val Phe Ile Gly Val Gly Ala Val Thr Met Leu Met Gly Phe Leu Gly Cys Ile Gly 130 135 Ala Val Asn Glu Val Arg Cys Leu Leu Gly Leu Xaa Phe Ala Phe Leu 145 150 155 Leu Leu Ile Leu Ile Ala Gln Val Thr Ala Gly Ala Leu Phe Tyr Phe 170 Asn Met Gly Lys Val Ser Pro Ser Leu Pro Pro Ser Ser Leu Gly Trp 180 185

Thr Asn His Gly Gly Asp 195

<210> 501 <211> 169 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (165) <223> Xaa equals any of the naturally occurring L-amino acids Ser Ser Ala Ser Thr Asn Met Ser Arg Gly Ser Ser Ala Gly Phe Asp 5 10 Arg His Ile Thr Ile Phe Ser Pro Glu Gly Arg Leu Tyr Gln Val Glu 25 Tyr Ala Phe Lys Ala Ile Asn Gln Gly Gly Leu Thr Ser Val Ala Val Arg Gly Lys Asp Cys Ala Val Ile Val Thr Gln Lys Lys Val Pro Asp 55 Lys Leu Leu Asp Ser Ser Thr Val Thr His Leu Phe Lys Ile Thr Glu 70 75 Asn Ile Gly Cys Val Met Thr Gly Met Thr Ala Asp Ser Arg Ser Gln 85 Val Gln Arg Ala Arg Tyr Glu Ala Ala Asn Trp Lys Tyr Lys Tyr Gly 105 Tyr Glu Ile Pro Val Asp Met Leu Cys Lys Arg Ile Ala Asp Ile Ser Gln Val Tyr Thr Gln Asn Ala Glu Met Arg Pro Leu Gly Cys Cys Met 135 Ile Leu Ile Gly Ile Asp Glu Glu Gln Gly Pro Gln Val Tyr Lys Cys 150 155 Asp Pro Ala Gly Xaa Tyr Cys Gly Val

<210> 502

<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (361)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<pre><222> (461) </pre>
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 502
Val Arg Gln Leu Cys Arg Pro Ala Glu Xaa Asp Ser Val Met Ala Glu
1 5 10 15
Gln Val Ala Leu Ser Arg Thr Gln Val Cys Gly Ile Leu Arg Glu Glu
20 25 30
Leu Phe Gln Gly Asp Ala Phe His Gln Ser Asp Thr His Ile Phe Ile
35 40 45
Ile Met Gly Ala Ser Gly Asp Leu Ala Lys Lys Lys Ile Tyr Pro Thr
50 55 60
Ile Trp Trp Leu Phe Arg Asp Gly Leu Leu Pro Glu Asn Thr Phe Ile
65 70 75 80
Val Gly Tyr Ala Arg Ser Arg Leu Thr Val Ala Asp Ile Arg Lys Gln
85 90 95
Ser Glu Pro Phe Phe Lys Ala Thr Pro Glu Glu Lys Leu Lys Leu Glu
100 105 110
Asp Phe Phe Ala Arg Asn Ser Tyr Val Ala Gly Gln Tyr Asp Asp Ala
115 120 125
Ala Ser Tyr Gln Arg Leu Asn Ser His Met Asn Ala Leu His Leu Gly
130 135 140
Com Cla ble has been your miss many took all they have have miss took and
Ser Gln Ala Asn Arg Leu Phe Tyr Leu Ala Leu Pro Pro Thr Val Tyr 145 150 155 160
140 120 100
Glu Ala Val Thr Lys Asn Ile His Glu Ser Cys Met Ser Gln Ile Gly
165 170 175

	ng.	nrg	180	110	Val	GIU	Lys	185		Gly	ary	nap	190	GIII	361
Ser	Asp	Arg 195	Leu	Ser	Asn	His	11e 200	Ser	Ser	Leu	Phe	Arg 205	Glu	Asp	Gln
Ile	Tyr 210	Arg	Ile	Asp	His	Tyr 215	Leu	Gly	Lys	Glu	Met 220	Val	Gln	Asn	Leu
Met 225	Val	Leu	Arg	Phe	Ala 230	Asn	Arg	Ile	Phe	Gly 235	Pro	Ile	Trp	Asn	Arg 240
Asp	Asn	Ile	Ala	Cys 245	Val	Ile	Leu	Thr	Phe 250	Lys	Glu	Pro	Phe	Gly 255	Thr
Glu	Gly	Arg	Gly 260	Gly	Tyr	Phe	Asp	Glu 265	Phe	Gly	Ile	Ile	Arg 270	Asp	Val
Met	Gln	Asn 275	His	Leu	Leu	Gln	Met 280	Leu	Cys	Leu	Val	Ala 285	Met	Glu	Lys
Pro	Ala 290	Ser	Thr	Asn	Ser	Asp 295	Asp	Val	Arg	Asp	Glu 300	Lys	Val	Lys	Val
Leu 305	Lys	Суѕ	Ile	Ser	Glu 310	Val	Gln	Ala	Asn	Asn 315	Val	Val	Leu	Gly	Gln 320
Туг	Val	Gly	Asn	Pro 325	Asp	Gly	Glu	Gly	Glu 330	Ala	Thr	Lys	Gly	Tyr 335	Leu
Asp	Asp	Pro	Thr 340	Val	Pro	Arg	Gly	Ser 345	Thr	Thr	Ala	Thr	Phe 350	Ala	Ala
Val	Val	Leu 355	Tyr	Val	Glu	Asn	Glu 360	Xaa	Trp	Asp	Gly	Val 365	Pro	Phe	Ile
Leu	Arg 370	Cys	Gly	Lys	Ala	Leu 375	Asn	Glu	Arg	Lys	Ala 380	Glu	Val	Arg	Leu
Gln 385	Phe	His	Asp		Ala 390	_	Asp			His 395		Gln	Cys	_	Arg 400
Asn	Glu	Leu	Val	Ile 405	Arg	Val	Gln	Pro	Asn 410	Glu	Ala	Val	Tyr	Thr 415	Lys
Met	Met	Thr	Lys 420	Lys	Pro	Gly	Met	Phe 425	Phe	Asn	Pro	Glu	Glu 430	Ser	Glu
Leu		Leu 435	Thr	Tyr	Gly		Arg	-	Lys	Asn		Lys 445	Leu	Pro	Asp

Ala Tyr Glu Arg Leu Ile Leu Asp Val Phe Cys Gly Xaa Gln Met His 450 455 460

PCT/US00/05881

Phe Val Arg Arg Thr Ser Ser Val Arg Pro Gly Val Phe Ser Pro His 465 470 475 480

Cys Cys Thr Arg Leu Ser Trp Arg Ser Pro Ser Pro Ser Pro Ile Phe
485 490 495

Met Ala Ala Glu Ala Pro Arg Arg Gln Thr Ser 500 505

<210> 503

WO 00/55173

<211> 260

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 503

Gly Pro Glu Val Leu Pro Glu Pro Arg Val Pro Arg Glu Ala Leu Ala 1 5 10 15

Phe Ile Ile Arg Ser Phe Gly Glu Val Ser Trp Asp Lys Ser Leu 20 25 30

Cys Ile Gly Ala Thr Tyr Asp Val Thr Asp Ser Arg Ile Thr His Gln
35 40 45

Ile Val Asp Arg Pro Gly Gln Gln Thr Ser Val Ile Gly Arg Cys Tyr 50 60

Val Gln Pro Gln Xaa Val Phe Asp Ser Val Asn Ala Arg Leu Leu 65 70 75 80

Pro Val Ala Glu Tyr Phe Ser Gly Val Gln Leu Pro Pro His Leu Ser 90 95

Pro Phe Val Thr Glu Lys Glu Gly Asp Tyr Val Pro Pro Glu Lys Leu 100 105 110

Lys Leu Leu Ala Leu Gln Arg Gly Glu Asp Pro Gly Asn Leu Asn Glu 115 120 125

Ser Glu Glu Glu Glu Glu Asp Asp Asn Asn Glu Gly Asp Gly Asp

130 135 140 Glu Glu Glu Glu Glu Glu Glu Glu Asp Ala Glu Ala Gly Ser 150 Glu Lys Glu Glu Glu Ala Arg Leu Ala Ala Leu Glu Glu Gln Arg Met 170 Glu Gly Lys Lys Pro Arg Val Met Ala Gly Thr Leu Lys Leu Glu Asp 185 Lys Gln Arg Leu Ala Gln Glu Glu Ser Glu Ala Lys Arg Leu Ala 200 Ile Met Met Lys Lys Arg Glu Lys Tyr Leu Tyr Gln Lys Ile Met 215 Phe Gly Lys Arg Arg Lys Ile Arg Glu Ala Asn Lys Leu Ala Glu Lys 230 235 Arg Lys Ala His Asp Glu Ala Val Arg Ser Glu Lys Lys Ala Lys Lys 250 Ala Arg Pro Glu 260 <210> 504 <211> 424 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (292) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (342) <223> Xaa equals any of the naturally occurring L-amino acids Leu Leu Gln Arg Cys Tyr Ala Phe Pro Gly His Arg Leu Ala His Ser 10 Gly Ser Asp Leu Ser Leu Leu Val Pro Glu Ile Glu Asp Met Tyr Ser Ser Pro Tyr Leu Arg Pro Ser Glu Ser Pro Ile Thr Val Glu Val Asn

		35					40					45			
Cys	Thr 50	Asn	Pro	Gly	Thr	Arg 55	туг	Cys	Trp	Met	Ser 60	Thr	Gly	Leu	Tyr
Ile 65	Pro	Gly	Arg	Gln	Ile 70	Ile	Glu	Val	Ser	Leu 75	Pro	Glu	Ala	Ala	Ala 80
Ser	Ala	Asp	Leu	Lys 85	Ile	Gln	Ile	Gly	Cys 90	His	Thr	Asp	Asp	Leu 95	Thr
Arg	Ala	Ser	Lys 100	Leu	Phe	Arg	Gly	Pro 105	Leu	Val	Ile	Asn	Arg 110	Cys	Cys
Leu	Asp	Lys 115	Pro	Thr	Lys	Ser	Ile 120	Thr	Cys	Leu	Trp	Gly 125	Gly	Leu	Leu
Tyr	11e 130	Ile	Val	Pro	Gln	Asn 135	Ser	Lys	Leu	Gly	Ser 140	Val	Pro	Val	Thr
145			Ala		150					155					160
Leu	Glu	Glu	Trp	Lys 165	Arg	Arg	Ile	Gln	Glu 170	Asn	Pro	Gly	Pro	Trp 175	Gly
Glu	Leu	Ala	Thr 180	Asp	Asn	Ile	Ile	Leu 185	Thr	Val	Pro	Thr	Ala 190	Asn	Leu
Arg	Thr	Leu 195	Glu	Asn	Pro	Glu	Pro 200	Leu	Leu	Arg	Leu	Trp 205	Asp	Glu	Val
Met	Gln 210	Ala	Val	Ala	Arg	Leu 215	Gly	Ala	Glu	Pro	Phe 220	Pro	Leu	Arg	Leu
Pro 225	Gln	Arg	Ile	Val	Ala 230	Asp	Val	Gln	Ile	Ser 235	Val	Gly	Trp	Met	His 240
	•	•	Pro	245		•			250					255	
Asn	Glu	Lys	Leu 260	Ile	Arg	Thr	Lys	Gly 265	Leu	Trp	Gly	Pro	Val 270	His	Glu
Leu	Gly	Arg 275	Asn	Gln	Gln	Arg	Gln 280	Glu	Trp	Glu	Phe	Pro 285	Pro	His	Thr
Thr	Glu 290	Ala	Xaa	Cys	Asn	Leu 295	Trp	Cys	Val	Tyr	Val 300	His	Glu	Thr	Val
Leu	Gly	Ile	Pro	Arg	Ser	Arg	Ala	Asn	Ile	Ala	Leu	Trp	Pro	Pro	Val

459

305

310 315 320 Arg Glu Lys Arg Val Arg Ile Tyr Leu Ser Lys Gly Pro Asn Val Lys 325 330 Asn Trp Asn Ala Trp Xaa Ala Leu Glu Thr Tyr Leu Gln Leu Gln Glu 345 Ala Phe Gly Trp Glu Pro Phe Ile Arg Leu Phe Thr Glu Tyr Arg Asn Gln Thr Asn Leu Pro Thr Glu Asn Val Asp Lys Met Asn Leu Trp Val 370 375 380 Lys Met Phe Ser His Gln Val Gln Lys Asn Leu Ala Pro Phe Phe Glu 385 390 Ala Trp Ala Gly Pro Ser Arg Arg Lys Trp Leu Pro Ala Trp Pro Ile 410 Cys Leu Asn Gly Arg Lys Ile Leu 420 <210> 505 <211> 70 <212> PRT <213> Homo sapiens <220> <221> SITE ' <222> (49) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (54) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (66) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (70) <223> Xaa equals any of the naturally occurring L-amino acids <400> 505

PCT/US00/05881

460

Leu His Gln Ser Leu Leu His Leu Glu Lys Thr Asn Glu Arg Lys Ser Ile Phe Leu Ile His Tyr Pro Asn Asn Asn Arg Thr Pro Tyr Arg Asn 25 Tyr Tyr His Tyr Val Ser Lys His Tyr Ile Pro Ile Thr Tyr Pro Thr Xaa Ser Ile Ile Asp Xaa Ile Ser Ile Pro Thr Met Ile Ser Ala Leu 55 Asn Xaa Gln Asn Lys Xaa 65 <210> 506 <211> 434 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (69) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (135) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (363) <223> Xaa equals any of the naturally occurring L-amino acids <400> 506 Ser Thr His Ala Ser Ala His Ala Ser Val Ser Thr Ala Ala Ala Ala Ala Leu Ala Ala Ala Val Lys Ala Lys His Leu Ala Ala Val Glu 25 Glu Arg Lys Ile Lys Ser Leu Val Ala Leu Leu Val Glu Thr Gln Met 40 Lys Lys Leu Glu Ile Lys Leu Arg His Phe Glu Glu Leu Glu Thr Ile

Met Asp Arg Glu Xaa Glu Ala Leu Glu Tyr Gln Arg Gln Gln Leu Leu

461

PCT/US00/05881

65					70					75					80
Ala	Asp	Arg	Gln	Ala 85	Phe	His	Met	Glu	Gln 90	Leu	Lys	Туr	Ala	Glu 95	Met
Arg	Ala	Arg	Gln 100	Gln	His	Phe	Gln	Gln 105	Met	His	Gln	Gln	Gln 110	Gln	Gln
Pro	Pro	Pro 115	Ala	Leu	Pro	Pro	Gly 120	Ser	Gln	Pro	Ile	Pro 125	Pro	Thr	Gly
Ala	Ala 130	Gly	Pro	Pro	Ala	Xaa 135	His	Gly	Leu	Ala	Val 140	Ala	Pro	Ala	Ser
Val 145	Val	Pro	Ala	Pro	Ala 150	Gly	Ser	Gly	Ala	Pro 155	Pro	Gly	Ser	Leu	Gly 160
Pro	Ser	Glu	Gln	11e 165	Gly	Gln	Ala	Gly	Ser 170	Thr	Ala	Gly	Pro	Gln 175	Gln
Gln	Gln	Pro	Ala 180	Gly	Ala	Pro	Gln	Pro 185	Gly	Ala	Val	Pro	Pro 190	Gly	Val
Pro	Pro	Pro 195	Gly	Pro	His	Gly	Pro 200	Ser	Pro	Phe	Pro	Asn 205	Gln	Gln	Thr
.Pro	Pro 210	Ser	Met	Met	Pro	Gly 215	Ala	Val	Pro	Gly	Ser 220	Gly	His	Pro	Gly
Val 225	Ala	Gly	Asn	Ala	Pro 230	Leu	Gly	Leu	Pro	Phe 235	Gly	Met	Pro	Pro	Pro 240
Pro	Pro	Pro	Pro	Ala 245	Pro	Ser	Ile	Ile	Pro 250	Phe	Gly	Ser	Leu	Ala 255	Asp
Ser	Ile	Ser	11e 260	Asn	Leu	Pro	Ala	Pro 265	Pro	Asn	Leu	His	Gly 270	His	His
His	His	Leu 275	Pro	Phe	Ala	Pro	Gly 280		Leu	Pro	Pro	Pro 285	Asn	Leu	Pro
Val	Ser 290	Met	Ala	Asn	Pro	Leu 295	His	Pro	Asn	Leu	Pro 300	Ala	Thr	Thr	Thr
Met 305	Pro	Ser	Ser	Leu	Pro 310	Leu	Gly	Pro	Gly	Leu 315	Gly	Ser	Ala	Ala	Ala 320
Gln	Ser	Pro	Ala	Ile 325	Val	Ala	Ala	Val	Gln 330	Gly	Asn	Leu	Leu	Pro 335	Ser
Ala	Ser	Pro	Leu	Pro	Asn	Pro	Glv	Thr	Pro	Leu	Pro	Pro	Asp	Pro	Thr

340 345 350 Ala Pro Ser Pro Arg His Gly His Pro Cys Xaa His Leu His Ser Glu Glu Pro Ala Arg His Leu Ser Pro Ser Pro Pro Val Asp Ile Thr Val Pro Gly Thr Ala Leu Pro Pro Pro Leu Gly Pro Ser Pro Ala Trp Arg 390 Val His His Tyr Val Arg Lys Ala Pro Ser Ala Pro Pro Lys Pro Ser 405 410 Pro Cys Leu Thr Glu Ala Cys Ile Phe Ile Ser Asp Tyr Ser Arg Thr 420 425 430 Ser Val <210> 507 <211> 303 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (165) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (280) <223> Xaa equals any of the naturally occurring L-amino acids Glu Tyr Val Phe Pro Ala Lys Lys Leu Gln Glu Tyr Arg Val Leu Ile Thr Thr Leu Ile Thr Ala Gly Ser Trp Ser Arg Pro Ser Phe Pro 25 Leu Ile Thr Ser His Thr Ser Ser Ser Met Arg Leu Ala Thr Ala Trp 35 40 Ser Leu Arg Ser Leu Val Ala Ile Ala Gly Leu Met Glu Val Lys Glu

Thr Gly Asp Pro Gly Gly Gln Leu Val Leu Ala Gly Asp Pro Arg Gln

65					70					75					80
Leu	Gly	Pro	Val	Leu 85	Arg	Ser	Pro	Leu	Thr 90	Gln	Lys	His	Gly	Leu 95	Gly
Tyr	Ser	·Leu	Leu 100	Glu	Arg	Leu	Leu	Thr 105	Tyr	Asn	Ser	Leu	туг 110	Lys	Lys
Gly	Pro	Asp 115	Gly	Tyr	Asp	Pro	Gln 120	Phe	Ile	Thr	Lys	Leu 125	Leu	Arg	Asn
Tyr	Arg 130	Ser	His	Pro	Thr	11e 135	Leu	Asp	Ile	Pro	Asn 140	Gln	Leu	Tyr	Tyr
Glu 145	Gly	Glu	Leu	Gln	Ala 150	Суѕ	Ala	Asp	Val	Val 155	Asp	Arg	Glu	Arg	Phe 160
Cys	Arg	Trp	Ala	Xaa 165	Leu	Pro	Arg	Gln	Gly 170	Phe	Pro	Ile	Ile	Phe 175	His
Gly	Val	Met	Gly 180	Lys	Asp	Glu	Arg	Glu 185	Gly	Asn	Ser	Pro	Ser 190	Phe	Phe
Asn	Pro	Glu 195	Glu	Ala	Ala	Thr	Val 200	Thr	Ser	Tyr	Leu	Lys 205	Leu	Leu	Leu
Ala	Pro 210	Ser	Ser	Lys	Lys	Gly 215	Lys	Ala	Arg	Leu	Ser 220	Pro	Arg	Ser	Val
Gly 225	Val	Ile	Ser	Pro	Туг 230	Arg	Lys	Gln	Val	G1u 235	Lys	Ile	Arg	Tyr	Cys 240
Ile	Thr	Lys	Leu	Asp 245	Arg	Glu	Leu	Arg	Gly 250	Leu	Asp	Asp	Ile	Lys 255	Asp
Leu	Lys	Val	Gly 260	Ser	Val	Glu	Glu	Phe 265	Gln	Gly	Gln	Glu	Arg 270	Ser	Val
Ile	Leu	Ile 275	Ser	Thr	Val	Arg	Xaa 280	Ala	Arg	Ala	Leu	Cys 285	Ser	Trp	Ile
Trp	Thr 290	Leu	Ile	Trp	Val	Ser 295	Leu	Arg	Thr	Pro	Arg 300	Gly	Ser	Met	

<210> 508

<211> 250

<212> PRT

<213> Homo sapiens

<220>

<22	1> S	ITE													
	2> (-													
<22	3> X	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
	0> 5					٠.									
Glu	Gln	Tyr	Leu	Pro	Leu	Thr	Glu	Glu	Glu	Leu	Glu	Lys	Glu	Ala	Xaa
1				5					10					15	
Lys	Val	Glu	Gly	Phe	Asp	Leu	Val	Gln	Lys	Pro	Ser	Tyr	Tyr	Val	Arg
			20					25					30		
Leu	Gly	Ser	Leu	Ser	Thr	Lys	Leu	His	Ser	Arg	Ala	Tyr	Gln	Gln	Ala
		35					40					45			
Leu	Ser	Arg	Val	Lys	Glu	Ala	Lys	Gln	Lys	Ser	Gln	Gln	Thr	Ile	Ser
	50					55					60				
	Leu	His	Ser	Thr	Val	His	Leu	Ile	Glu	Phe	Ala	Arg	Lys	Asn	Val
65					70					75					80
Tyr	Ser	Ala	Asn		Lys	Ile	Gln	Asp	Ala	Gln	Дsр	Lys	Leu	Tyr	Leu
				85					90					95	
Ser	Trp	Val		Trp	Lys	Arg	Ser		Gly	Tyr	Asp	Asp	Thr	Asp	Glu
			100					105					110		
				_											
Ser	Hıs	_	Ala	Glu	His	Ile		Ser	Arg	Thr	Leu		Ile	Ala	Arg
		115					120					125			
	_				_								_	_	
Asn		Thr	Gln	Gln	Leu		Thr	Thr	Cys	His		Leu	Leu	Ser	Asn
	130					135					140				
				_		_						_			
	GIN	GTA	vaı	Pro		Asn	He	Gln	Asp		Ala	Lys	His	Met	_
145					150					155					160
*** 1		.1-	a 3	•	-1-		_			_	_			_	
var	met	Ala	GIY		ire	ryr	ser	Val		Arg	Asn	Ala	Ala		Phe
				165					170					175	
T	~1.		a	•	0	-	• -		_	_	_		-1		
гÀг	GIU	vaı		Asp	ser	reu	Leu		ser	ser	rys	GIY	Gln	Leu	GIN
			180					185					190		
*	Mak	T	G3	C	T			••- 1		•		•	**- 3	•	
rys	met		GIU	ser	Leu	Asp		vaı	Met	Asp	Tyr		Val	Asn	ASN
		195					200					205			
ml	D	T	N	m		•••	~ 1	_		_	n	63	• .	mt ··	۵,
THE		ren	ASN	rrp	reu		GIÀ	Pro	Pne	Tyr		GIN	Leu	rnr	GIU
	210					215					220				
C	C1 -	N	5 7 -	6 3		- 1	- 1		a ?			*	0		
	GTU	пеа	WIG	GIN	_	GIN	GTA	ATA	GIU		Aab	гÀг	Ser	ser	
225					230					235					240

465

Glu Thr Gln Arg Ser Glu His Lys Thr His 245 250

<210> 509

<211> 98

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 509

His Glu Leu Trp Gly Cys Gly Pro Val Thr Pro Arg Arg Thr Ala Pro 1 5 10 15

Ser Gly Trp Ala Gln Ala Pro Leu Ser Asp Thr Ala Gln Val Tyr Met $20 \hspace{1cm} 25 \hspace{1cm} 30$

Glu Leu Gln Gly Leu Val Asp Pro Gln Ile Gln Leu Pro Leu Leu Ala 35 40

Ala Arg Ser Thr Ser Cys Arg Ser Ser Leu Ile Ala Ser Gln Pro Gly
50 60

Pro His Gln Lys Gly Arg Gln Gly Leu Arg Gly Asn Lys Ser Phe Leu 65 70 75 80

Pro Ser Ser Trp Asn Cys Gln Asn Trp Thr Arg Gln Pro Leu Thr Ser 85 90 95

Xaa Ser

<210> 510

<211> 392

<212> PRT

<213> Homo sapiens

<400> 510

Gly Ala Met Arg Gly Asp Arg Gly Arg Gly Gly Arg Phe Gly
1 5 10 15

Ser Arg Gly Gly Pro Gly Gly Gly Phe Arg Pro Phe Val Pro His Ile 20 25 30

Pro	Phe	Acn	Pho	ጥ ህ r	Leu	Cve	Glin	Met	د ۱ ۵	Pho	Pro	Arc	Va 1	T.ve	Pro
110	1116	35	rne	TYL	Deu	cys	40	riet	urq	FIIE	FIO	45	val	Pla	FLU
Ala	Pro 50	Asp	Glu	Thr	Ser	Phe 55	Ser	Glu	Ala	Leu	Leu 60	Lys	Arg	Asn	Gln
Asp 65	Leu	Ala	Pro	Asn	Ser 70	Ala	Glu	Gln	Ala	Ser 75	Ile	Leu	Ser	Leu	Val 80
Thr	Lys	Ile	Asn	Asn 85	Val	Ile	Asp	Asn	Leu 90	Ile	Val	Ala	Pro	Gly 95	Thr
Phe	Glu	Val	Gln 100	Ile	Glu	Glu	Val	Arg 105	Gln	Val	Gly	Ser	Туг 110	Lys	Lys
Gly	Thr	Met 115	Thr	Thr	Gly	His	Asn 120	Val	Ala	Asp	Leu	Val 125	Val	Ile	Leu
Lys	11e 130	Leu	Pro	Thr	Leu	Glu 135	Ala	Val	Ala	Ala	Leu 140	Gly	Asn	Lys	Val
Val 145	Glu	Ser	Leu	Arg	Ala 150	Gln	Asp	Pro	Ser	Glu 155	Val	Leu	Thr	Met	Leu 160
Thr	Asn	Glu	Thr	Gly 165	Phe	Glu	Ile	Ser	Ser 170	Ser	Asp	Ala	Thr	Val 175	Lys
Ile	Leu	Ile	Thr 180	Thr	Val	Pro	Pro	Asn 185	Leu	Arg	Lys	Leu	Asp 190	Pro	Glu
Leu	His	Leu 195	Asp	Ile	Lys	Val	Leu 200	Gln	Ser	Ala	Leu	Ala 205	Ala	Ile	Arg
His	Ala 210	Arg	Trp	Phe	Glu	Glu 215	Asn	Ala	Ser	Gln	Ser 220	Thr	Val	Lys	Val
Leu 225	Ile	Arg	Leu	Leu	Lys 230	Asp	Leu	Arg	Ile	Arg 235	Phe	Pro	Gly	Phe	Glu 240
Pro	Leu	Thr	Pro	Trp 245	Ile	Leu	Asp	Leu	Leu 250	Gly	His	туг	Ala	Val 255	Met
Asn	Asn	Pro	Thr 260	Arg	Gln	Pro	Leu	Ala 265	Leu	Asn	Val	Ala	Туг 270	Arg	Arg
Cys	Leu	Gln 275	Ile	Leu	Ala	Ala	Gly 280	Leu	Phe	Leu	Pro	Gly 285	Ser	Val	Gly
	Thr	-	Pro	Cys	Glu	Ser	_	Asn	Phe	Arg	Val	His	Thr	Val	Met

Thr Leu Glu Gln Gln Asp Met Val Cys Tyr Thr Ala Gln Thr Leu Val

Arg Ile Leu Ser His Gly Gly Phe Arg Lys Ile Leu Gly Gln Glu Gly

Asp Ala Ser Tyr Leu Ala Ser Glu Ile Ser Thr Trp Asp Gly Val Ile 345

Val Thr Pro Ser Glu Lys Ala Tyr Glu Lys Pro Pro Glu Lys Lys Glu 360 365

Gly Glu Glu Glu Glu Asn Thr Glu Glu Pro Pro Gln Gly Glu Glu 380

Glu Glu Ser Met Glu Thr Gln Glu 390

<210> 511

<211> 72

<212> PRT

<213> Homo sapiens

His Gly Gly Lys Gly Arg Gln Val Gly Leu His Ser Val Gln Arg 5 10

Pro Ala Arg Arg Glu Thr Ala Ala Ser Trp Gly Leu Cys Val Lys Ile 25

Pro Asp Leu Gly Val Ala Phe Val Tyr Lys Met Gln Glu Gly Lys Pro 40

Val Pro Asp Ser Ser Arg Gln His Ala Gln Leu Ser Gly Ser Pro Val 50

Ser Gln Gly Leu Ser Leu Pro Leu

<210> 512

<211> 181

<212> PRT

<213> Homo sapiens

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<222> (14)

468

<223> Xaa equals any of the naturally occurring L-amino acids

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 512

Gly Trp Cys Ser Cys Ala His Ser Ser Ala Trp Pro Gly Xaa Trp Gly
1 5 10 15

Ala Ser Gly Ile Pro Gln Gln Ala Pro Met Thr Val Cys Asp Gln Ala
20 25 30

Xaa Pro Val Thr Phe Leu Leu Leu His Leu Glu Gly Gly Asp Ile His 35 40 45

Thr Val Ser His Leu Ser Ser Pro Pro Gly Val Ala His Arg Met 50 55 60

Gly Thr Gly Gly Ser Arg Asn Pro Asn Pro Ala Trp Leu Gly Gly Ala 65 70 75 80

Leu Leu Val Arg Gly Arg Pro Ala Ser Leu Ala Pro Trp Gly His Ser 85 90 95

Trp Lys Arg Gly Leu Ala His Ala Pro Leu Arg Ala Gly Thr Cys Thr 100 105 110

Gly His Thr Arg His Ser Ala Cys Trp Asn Arg Trp Leu Cys Ser Cys 115 120 125

Ser Gly Pro Arg Ala Ala Xaa Leu Arg Pro Cys Thr Ser His Met His 130 140

Trp Thr Arg Ala Glu Thr Pro Val Cys Tyr Arg Ala Leu Val Leu Cys 145 150 155 160

Gly Pro Gly Ala Thr Ala Gln Ser Ser Gln Trp Arg Ser Thr Pro Leu 165 170 175

Asp Ser Ile Phe Phe

PCT/US00/05881

469

WO 00/55173

195

<210> 513 <211> 202 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (15) <223> Xaa equals any of the naturally occurring L-amino acids <400> 513 Leu Gly Asp Thr Ile Glu Gly Thr Pro Ala Gly Thr Val Pro Xaa Phe Pro Gly Arg Pro Thr Arg Ala Ile Met Ala Gln Asp Gln Gly Glu Lys 20 Glu Asn Pro Met Arg Glu Leu Arg Ile Arg Lys Leu Cys Leu Asn Ile Cys Val Gly Glu Ser Gly Asp Arg Leu Thr Arg Ala Ala Lys Val Leu 50 55 60 Glu Gln Leu Thr Gly Gln Thr Pro Val Phe Ser Lys Ala Arg Tyr Thr Val Arg Ser Phe Gly Ile Arg Arg Asn Glu Lys Ile Ala Val His Cys Thr Val Arg Gly Ala Lys Ala Glu Glu Ile Leu Glu Lys Gly Leu Lys 100 105 Val Arg Glu Tyr Glu Leu Arg Lys Asn Asn Phe Ser Asp Thr Gly Asn 120 Phe Gly Phe Gly Ile Gln Glu His Ile Asp Leu Gly Ile Lys Tyr Asp 130 135 140 Pro Ser Ile Gly Ile Tyr Gly Leu Asp Phe Tyr Val Val Leu Gly Arg 145 155 Pro Gly Phe Ser Ile Ala Asp Lys Lys Arg Arg Thr Gly Cys Ile Gly 170 Ala Lys His Arg Ile Ser Lys Glu Glu Ala Met Arg Trp Phe Gln Gln Lys Tyr Asp Gly Ile Ile Leu Pro Gly Lys

WO 00/55173

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<210> 514
<211> 63
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<213> Homo sapiens
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Xaa Xaa Lys Asn Xaa Ile Thr Pro Lys Glu Glu Ser Pro Pro His Xaa
Ala Leu Leu Ser Lys Cys Leu Leu Thr Pro Ser Pro Lys Met Pro Pro
             20
                                 25
Ile Leu Xaa Val Met Ala Ala Leu Gly Phe Glu Arg Arg Glu Phe Gly
Ser Thr Ser Val Glu Arg Val Gln Ser Arg Gln Leu Asp Cys Phe
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<210> 515 <211> 218

<212> PRT

<213> Homo sapiens

<22															
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<22	2> (151)													
<22	3> x	(aa e	qual	s an	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	ds
<22	0>														
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<22	2> (209)													
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<22	2> (211)													
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<40	0> 5	15		•											
Ser	Leu	Ala	Arg	Gly	Cys	Gln	Arg	Pro	Asp	Ala	Val	Leu	Tvr	Ala	Arc
1			,	5			,		10					15	
***			- 1-							_	_		•	_	
nis	туг	Asn		Pro	Val	IIe	His			Arg	Arg	Ala		Asp	Asp
			20					25					30		
Pro	Glv	Leu	Val	Phe	Asn	Gln	Leu	Pro	I.vs	Met	Len	Tvr	Pro	Glu	TUI
	•	35					40		-10			45			-,-
His	Lys	Val	His	Gln	Met	Met	Arg	Glu	Gln	Ser	Ile	Leu	Ser	Pro	Ser
	50					55					60				
Pro	Tyr	Glu	Gly	Tyr	Arg	Ser	Leu	Pro	Arg	His	Gln	Leu	Leu	Cys	Phe
65					70					75					80
_			_												
Lys	Glu	Asp	Cys		Ala	Val	Phe	Gln		Leu	Glu	Gly	Val		Lys
				85					90					95	
Val	Dho	Gly	U = 1	Sor	T an	Wal.	Leu	u a l	T 011	T10	C1	505	uia	Dwa	200
val	FILE	GLY	100	261	Leu	vai	Leu		Leu	11e	GIŸ	ser		PIO	ASE
			100					105					110		
Leu	Ser	Phe	Leu	Pro	Glv	Δla	Gly	Δla	Acn	Dhe	Δla	Val	Acn	Pro	Acr
204	001	115	Deu	110	CLy	AIG.	120	VI.	тэр	FIIC	AIG	125	кар	FIO	vař
							120					123			
Gln	Pro	Leu	Ser	Ala	Lvs	Ara	Asn	Pro	Tle	Asp	Val	Asp	Pro	Phe	Thr
	130				-1-	135					140				
Tyr	Gln	Ser	Thr	Arg	Gln	Xaa	Gly	Leu	Tvr	Ala	Met	Gly	Pro	Leu	Ala
145					150		_			155		•			160
															•
Gly	Asp	Asn	Phe	Val	Arg	Phe	Val	Gln	Gly	Gly	Ala	Leu	Ala	Val	Ala
_	-			165	_				170	-				175	
Ser	Ser	Leu	Leu	Arg	Lys	Glu	Gln	Asn	His	Leu	His	Arg	Gln	Pro	Trp
			180					185					190		

Ser Ser Leu Arg Gly Ile His Pro Leu Ile Asp Leu Lys Ser Gly Val 195 200 205 Xaa Pro Xaa Leu Val Lys Leu Thr Ala Gln 210 215 <210> 516 <211> 41 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (22) <223> Xaa equals any of the naturally occurring L-amino acids <400> 516 Asn Gly Arg Pro Asp Ser Thr Gly Pro Ala Ile Pro Gly Ile Leu Ser 5 Trp Gly Phe Glu Thr Xaa Leu Arg Asp Arg Glu Thr Asp Pro Arg Asn Val Leu Asn Cys Asn Gly Pro His Thr 35 <210> 517 <211> 250 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (118) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (161) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (204) <223> Xaa equals any of the naturally occurring L-amino acids

473

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Gly 1	Phe	Asn	Arg	Ser 5	Phe	Cys	Gly	Arg	Asn 10	Ala	Thr	Val	Tyr	Gly 15	Lys
Gly	Val	туг	Phe 20	Ala	Arg	Arg	Ala	ser 25	Leu	Ser	Val	Gln	Asp 30	Arg	Tyr
Ser	Pro	Pro 35	Asn	Ala	Asp	Gly	His 40	Lys	Ala	Val	Phe	Val 45	Ala	Arg	Val
Leu	Thr 50	Gly	Asp	Tyr	Gly	Gln 55	Gly	Arg	Arg	Gly	Leu 60	Arg	Ala	Pro	Pro
Leu 65	Arg	Gly	Pro	Gly	His 70	Val	Leu	Leu	Arg	Tyr 75	Asp	Ser	Ala	Val	Asp 80
Cys	Ile	Суѕ	Gln	Pro 85	Ser	Ile	Phe	Val	Ile 90	Phe	His	Asp	Thr	Gln 95	Ala
Leu	Pro	Thr	His 100	Leu	Ile	Thr	Cys	Glu 105	Ala	Arg	Ala	Pro	Arg 110	Phe	Pro
Arg	Arg	Pro 115	Leu	Trp	Xaa	Pro	Gly 120	Pro	Leu	Pro	Arg	His 125	Leu	Thr	Glu
Gly	Ala 130	Thr	Leu	Trp	Pro	Pro 135	Ala	Ser	Gln	Ala	Pro 140	Ser	Ser	Ala	Gln
Ala 145	Asp	Ala	Pro	Arg	Pro 150	Gln	Leu	Trp	Pro	Pro 155	Glu	Leu	Ser	Pro	Gly 160
Kaa	Pro	Cys	Leu	Pro 165	Leu	Arg	Ala	Pro	Glu 170	Gly	Gly	Val	Gly	Asp 175	Gly
Gly	Gln	Gln	Arg 180	Pro	Arg	Gly	Ala	Gly 185	Leu	Gly	Pro	Ser	Leu 190	Gly	Arg
Pro	His	His 195	Gln	Gly	Ser	Ala	Glu 200	Pro	Arg	Arg	Xaa	His 205	Arg	Pro	Pro
Ala	Ala 210	Pro	Arg	Pro	Arg	Pro 215	Ser	Arg	Leu	CÀa	Cys 220	Leu	Asn	Lys	Arg
Glu 225	Arg	Glu	Pro		Arg		Gly	Pro	_	Lys		Lys	Lys		Lys

Lys Lys Lys Lys Lys Lys Lys Lys Lys 250

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<210> 518
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<220>
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Asn Pro Xaa Lys Lys Leu Xaa Ile Leu Ile Lys Trp Pro Pro Pro Phe
Pro Pro Ser Phe Pro Pro Ser Pro Asn Ser Leu Ser Ser Ser Phe
Pro Pro Pro Leu Ser Leu Phe Ser Pro Ser Phe Thr Phe Leu Ile Ser
         35
                            40
                                                 45
Val Lys Leu Glu Arg Phe Glu Ile Pro Ile Lys Val Arg Leu Ser Pro
                         55
Glu Pro Trp Thr Pro Glu Thr Gly Leu Val Thr Asp Ala Phe Lys Leu
                    70
Lys Arg Lys Glu Leu Arg Asn His Tyr Leu Lys Asp Ile Glu Arg Met
Tyr Gly Gly Lys
            100
<210> 519
<211> 60
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
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<222> (17)

WO 00/55173 PCT/US00/05881

<223> Xaa equals any of the naturally occurring L-amino acids <400> 519 His Glu Asp Gly Xaa Leu Met Gly Cys Arg His Arg Trp His Pro Arg Xaa Val Pro Phe His Gln Thr Ser Pro Lys Thr Glu Leu Glu Ser Thr 20 25 Ile Phe Gly Ser Pro Arg Leu Ala Ser Gly Leu Phe Pro Glu Trp Gln Ser Trp Gly Arg Met Glu Asn Leu Ala Ser Tyr Arg 55 <210> 520 <211> 120 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (25) <223> Xaa equals any of the naturally occurring L-amino acids <400> 520 Ser His Pro Tyr Ala Pro Ser Cys Gly Leu Arg Gly Pro Gly Ala Ala 10 Ser Arg Ala Arg Thr Arg Glu Arg Xaa Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe 35 40 Arg Gln Arg Phe Arg Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro 70 75 Asp Ile Arg Thr Lys Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln 85 90 Leu Leu Ala Ile Leu Pro Glu Ala Ala Arg Ala Arg Ile Arg Arg 105

Arg Thr Asp Val Arg Ile Thr Gly

476

115 120

<210> 521

<211> 96

<212> PRT

<213> Homo sapiens

<400> 521

Gly His Gln Thr Val Ser Pro Ser Thr Gly Ser Arg Val Thr Arg Met
1 5 10 15

Phe Ser Leu Ile Ser Phe Ser His Val Phe Ile Lys Asp Ile Cys Lys 20 25 30

Leu Pro Lys Asp Glu Gly Thr Cys Arg Asp Phe Ile Leu Lys Trp Tyr 35 40 45

Tyr Asp Pro Asn Thr Lys Ser Cys Ala Arg Phe Trp Tyr Gly Gly Cys
50 60

Gly Gly Asn Glu Asn Lys Phe Gly Ser Gln Lys Glu Cys Glu Lys Val 65 70 75 80

Cys Ala Pro Val Leu Ala Lys Pro Gly Val Ile Ser Val Met Gly Thr 85 90 95

<210> 522

<211> 122

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 522

Asn Ser Gly Phe Arg Pro Lys Asn Pro Val Gly Arg Gly Glu Pro 1 5 10 15

Glu Xaa Cys Gly Gly Ala Gly Gly Leu Gly Cys Thr Leu Val Trp Gly
20 25 30

Gly Thr Gly Ala Ala Val Val Thr Gly Val Val Trp Leu Leu Pro

477

35 40 45

Asn Gly Gly Val Gly Val Gly Leu Leu Gly Pro Gln Ser Pro Val Gly 50 55 60

Gly Ser Asp Ser Ala Pro Tyr Ser Leu His Pro Ala Gly Arg Thr Trp 65 70 75 80

Gly Leu Arg Ser Glu Cys Ile Pro Pro Leu Ser Phe Asn Leu Ser Cys 85 90 95

Arg Thr His Ser Gly Pro Gly Ala Arg Leu Gly Glu Ala Gly Pro Asn 100 105 110

Tyr Gly Ser Arg Glu Leu Gln Val Pro Thr 115 120

<210> 523

<211> 94

<212> PRT

<213> Homo sapiens

<400> 523

Leu Ile Pro Gln Val Cys Cys Lys His Ser Met Glu Asp Thr Asp Asp

1 10 15

Ser Leu Val Leu Val Phe Leu Ser Ala Val Asn Val Gln Gln Phe Ala 20 25 30

Gln Glu Leu Gly Asp His Ile Cys Leu Ser Gly Gln Gly Ser Glu Val 35 40 45

His Trp Asn Leu Leu Arg Asn Leu Phe Val Lys Thr Ile Val Asn Asn 50 55 60

Tyr Cys Ile Phe Leu Gln Lys Tyr Ile Leu Glu Asn Cys Ile Leu Ser 65 70 75 80

Ile Lys Val Phe Leu Cys Lys Lys Lys Lys Lys Leu Val 85 90

<210> 524

<211> 93

<212> PRT

<213> Homo sapiens

<220>

478

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<221> SITE
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Ser Ala Val Met Gly Arg Lys Lys Lys Gln Leu Lys Pro Trp Cys
                                    10
Trp Tyr Cys Asn Arg Asp Phe Asp Asp Glu Lys Ile Leu Ile Gln His
             20
                                 25
Gln Lys Ala Lys His Phe Lys Cys His Ile Cys His Lys Lys Leu Tyr
Thr Gly Pro Gly Leu Ala Ile His Cys Met Gln Val His Lys Glu Thr
     50
Ile Asp Ala Val Pro Asn Ala Tyr Leu Gly Glu Gln Thr Xaa Ile Gly
Asn Ile Trp Tyr Gly Xaa Tyr Ser Arg Lys Arg Tyr Xaa
                 85
                                     90
<210> 525
<211> 324
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (323)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 525
Asp Leu Arg Leu Ser Arg Pro Glu Ala Val Glu Ala Glu Ala Met Met
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Ala Ala Met Ala Thr Ala Arg Val Arg Met Gly Pro Arg Cys Ala Gln

25

	DCG	35		1160	710	11.5	40	PIO	val	rne	rea	45	Leu	NIG	NI.
Ala	Ala 50		Ala	Ala	Ala	Ala 55	Glu	Gln	Gln	Val	Pro 60	Leu	Val	Leu	Tr
Ser 65		Asp	Arg	Asp	Leu 70		Ala	Pro	Ala	Ala 75	Asp	Thr	His	Glu	G1 ₂
His	Ile	Thr	Ser	Asp 85	Leu	Gln	Leu	Ser	Thr 90	Tyr	Leu	Asp	Pro	Ala 95	Le
Glu	Leu	Gly	Pro 100	Arg	Asn	Val	Leu	Leu 105		Leu	Gln	Asp	Lys 110	Leu	Se
Ile	Glu	Asp 115	Phe	Thr	Ala	Tyr	Gly 120	Gly	Val	Phe	Gly	Asn 125	Lys	Gln	Ası
Ser	Ala 130	Phe	Ser	Asn	Leu	Glu 135	Asn	Ala	Leu	Asp	Leu 140	Ala	Pro	Ser	Sei
Leu 145	Val	Leu	Pro	Ala	Val 150	Asp	Trp	Tyr	Ala	Val 155	Ser	Thr	Leu	Thr	Th:
Туг	Leu	Gln	Glu	Lys 165	Leu	Gly	Ala	Ser	Pro 170	Leu	His	Val	Asp	Leu 175	Ala
Thr	Leu	Arg	Glu 180	Leu	Lys	Leu	Asn	Ala 185	Ser	Leu	Pro	Ala	Leu 190	Leu	Leu
Ile	Arg	Leu 195	Pro	Tyr	Thr	Ala	Ser 200	Ser	Gly	Leu	Met	Ala 205	Pro	Arg	Glu
Val	Leu 210	Thr	Gly	Asn	Asp	Glu 215	Val	Ile	Gly	Gln	Val 220	Leu	Ser	Thr	Leu
Lys 225	Ser	Glu	Asp	Val	Pro 230	Tyr	Thr	Ala	Ala	Leu 235	Thr	Ala	Val	Arg	Pro 240
Ser	Arg	Val	Ala	Arg 245		Val	Ala		Val 250		Gly	Gly	Leu	Gly 255	Arg
Gln	Leu	Leu	Gln 260	Lys	Gln	Pro	Val	Ser 265	Pro	Val	Ile	His	Pro 270	Pro	Val
Ser	Tyr	Asn 275	Asp	Thr	Ala	Pro	Arg 280	Ile	Leu	Phe	Trp	Ala 285	Gln	Asn	Ph∈
Ser	Val 290	Ala	Tyr	Lys	Asp	Gln 295	Trp	Glu	Asp	Leu	Thr 300	Pro	Leu	Thr	Phe

<400> 527

480

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Gly Val Gln Glu Leu Asn Leu Thr Gly Ser Phe Trp Asn Asp Ser Phe
                     310
Ala Ser Xaa His
<210> 526
<211> 66
<212> PRT
<213> Homo sapiens
<220>
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Phe Xaa Val Ser Trp Thr Trp Lys Gln Val Ser Glu Phe Pro Gly Asp
Gln Arg Asp Glu Val Leu Gln Leu Pro Pro Ser Ser Cys Asn Leu Val
                                  25
Ser Ser Gly Ala Gly Gly Glu Pro Glu Lys Leu Ala Ser Tyr Ile Thr
                             40
Ser Leu Trp Leu Phe Phe Ile Cys Lys Thr Arg Ile Ile Leu Asn Cys
     50
Lys Gly
 65
<210> 527
<211> 62
<212> PRT
<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids
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Asn Thr Gln Leu Trp Phe Leu Cys Phe Pro Asn Cys Lys Ala Ala Asp

481

Asn Lys Thr Pro Gly Phe His Val Ser Ser Ala Met Ser Thr Leu Thr

Gln Ile Leu Lys Gln Asn Ser Xaa Asn Ala Val Leu Arg Ile Gln Leu 35 40 45

Leu Leu Lys Pro Ile Ser Ile Cys Ile Ile Thr Thr Asn Ile 50 55 60

<210> 528

<211> 122

<212> PRT

<213> Homo sapiens

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<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

. <400> 528

Tyr Asn Lys Ile Glu Ile Met His Leu Val Met Trp Pro Thr Ser Leu

1 10 15

Leu Thr Thr Met Asp Cys Phe Gln Gln Gln Leu Ile Phe Trp Ser Val 20 25 30

Leu Arg Gly Ala Cys Met Ser Phe Val Thr Ser Gly Ser Thr Pro Ala 35 40 45

Val Lys Tyr Cys Phe His Leu Pro Leu Gln Lys Ala Ser Cys Leu Leu 50 55 60

Thr Ser Thr Ala Lys Ala Leu Phe Trp Thr Gly Tyr Leu Ile Lys Xaa 65 70 75 80

Ile Ser Val Arg Leu Cys Ser Val Ile Pro Ser Glu Pro Arg Phe Val
85 90 95

Ser Lys Ala Thr Val Leu Ser Xaa Xaa Pro Cys Val Trp Gly Gln Val

482

100 105 110

Ala Ile Pro Pro Met Ser Leu Val Ile Leu 115 120

<210> 529

<211> 182

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 529

Asp Arg Thr Arg Leu Ser Gln Ala Ser Thr Pro Thr Pro Val Cys Trp

1 5 10 15

Gly Leu Leu Gln Pro Pro Pro Trp Xaa Glu Ala Trp Tyr Arg Leu Thr 20 25 30

His Arg Gly Leu Cys Gln Val Arg Phe Cys Arg Trp Ser Gln Ala Leu 35 40 45

Pro Glu Ala Arg Gly Gly Ala Trp Ala Gly Ser Pro Gly Glu Gly Gln
50 60

Ala Gly Pro Arg Leu His Thr His Ile Gln Pro Ala Gly Leu Ser Ala 65 70 75 80

Val Leu Ser Pro Ser Leu Ser Ser Pro Ser Ser Ala Val Thr Leu Ser 85 90 95

Ser Pro Ser Leu Pro Ala Ser Pro Pro Ala Ala Pro Pro Val Lys Arg 100 105 110

Met Thr Lys Asp Leu Ser Tyr Ala Gly Ser Lys Asn Gln Asn Phe Leu 115 120 125

Leu Ala Phe Ser Phe Val Ala Ser Pro Ala Pro Ala Leu Pro Val Ser 130 135 140

His Pro Gly Pro Arg Leu Glu Ala Ser Leu His Leu Ser Tyr Cys Phe 145 150 155 160

Lys Pro Lys Phe Thr Val Ser Val Gly Gln Asp Leu Leu Ser Pro 165 170 175

483

Pro Leu Leu His Pro Pro

<210> 530

<211> 183

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81) ~

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 530

Ala Leu Val Leu Gly Xaa Lys Ser Val Arg Met Ala Ser Ser Arg Met

1 10 15

Thr Arg Arg Asp Pro Leu Thr Asn Lys Val Ala Leu Val Thr Ala Ser 20 25 30

Thr Asp Gly Ile Gly Phe Ala Ser Pro Gly Val Trp Pro Arg Thr Gly 35 40 45

Pro Arg Gly Arg Gln Gln Pro Glu Ala Ala Glu Cys Gly Pro Gly Gly 50 55 60

Gly Thr Leu Gln Gly Glu Gly Leu Ser Val Thr Gly Thr Cys Xaa Xaa 65 70 75 80

Xaa Gly Lys Ala Glu Asp Arg Glu Arg Leu Val Ala Thr Ala Val Lys 85 90 95

Leu His Gly Gly Ile Asp Ile Leu Val Ser Asn Ala Ala Val Asn Pro 100 105 110

Phe Phe Gly Ser Ile Met Asp Val Thr Glu Glu Val Trp Asp Lys Leu 120 Trp Met Asp Lys Glu Lys Glu Glu Ser Met Lys Glu Thr Leu Arg Ile Arg Arg Leu Gly Glu Pro Glu Asp Cys Ala Gly Ile Val Ser Phe Leu 145 150 155 Cys Ser Glu Asp Ala Ser Tyr Ile Thr Gly Glu Thr Val Val Gly 170 Gly Gly Thr Pro Ser Arg Leu 180 <210> 531 <211> 129 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (89) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (103) <223> Xaa equals any of the naturally occurring L-amino acids <400> 531 Asn Ser Ala Pro Leu Ser Pro Thr Gly Leu Gly Gln Gly His Thr Gly His Val Arg Phe Leu Ala Ala Val Gln Leu Pro Asp Gly Phe Asn Leu 20 25 30 Leu Cys Pro Thr Pro Pro Pro Pro Asp Thr Gly Pro Glu Lys Leu 40 Pro Ser Leu Glu His Arg Asp Ser Pro Trp His Arg Gly Pro Ala Pro 55 Ala Arg Pro Lys Met Leu Val Ile Ser Gly Gly Asp Gly Tyr Glu Asp 65 Phe Arg Leu Ser Ser Gly Gly Kaa Ala Val Arg Leu Trp Val Glu

90

485

Thr Thr Ala Gln Thr Thr Xaa Ser Cys Gly Gly Cys Asp Pro Val Cys
100 105 110

Arg Gly Pro Gly Leu Ala Arg Pro Pro Ala Phe Ser Leu Leu Ala Ser \cdots 115 120 125

Pro

<210> 532

<211> 91

<212> PRT

<213> Homo sapiens

<400> 532

Gly Ala Ile Ala Ser Ser Gly Pro Thr Gly Gly Arg Val Arg Lys His 1 5 10 15

Gln Leu Leu Pro Gly Ala Val Arg Glu Trp Glu Gln Leu Trp Ala Pro 20 25 30

His Phe Arg Gln Val Leu Pro Lys Pro Ser Asp Ala Val Arg Pro Gly $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Pro Val Val Leu Phe Arg Leu Cys Phe Gln Asn Ala Phe Ile Ser 50 60

Ser Val Pro Phe Gly Pro His Lys Ser Pro Trp Gly Val Gly Gly 65 70 75.

Leu Cys Arg His Pro His Phe Lys Ala Gly Ser 85 90

<210> 533

<211> 67

<212> PRT

<213> Homo sapiens

<220>

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<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 533

Asn Leu Cys Gln Val Gln Pro Thr Arg Leu Tyr Ser Ser Leu His Ser 1 10 15

<213> Homo sapiens

<220>

<221> SITE

<212> PRT

<222> (140)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 534

Phe Asn Arg Arg Tyr Pro Lys Ile Gln Phe Ser Leu Ser Thr Gly Pro l 15

Ser Gly Thr Met Leu Asp Gly Val Leu Glu Gly Lys Leu Asn Ala Ala 20 25 30

Phe Ile Asp Gly Pro Ile Asn His Thr Ala Ile Asp Gly Ile Pro Val 35 40 45

Tyr Arg Glu Glu Leu Met Ile Val Thr Pro Gln Gly Tyr Ala Pro Val 50 60

Thr Arg Ala Ser Gln Val Asn Gly Ser Asn Ile Tyr Ala Phe Arg Ala 65 70 75 80

Asn Cys Ser Tyr Arg Arg His Phe Glu Ser Trp Phe His Ala Asp Gly 85 90 95

Ala Ala Pro Gly Thr Ile His Glu Met Glu Ser Tyr His Gly Met Leu 100 105 110

PCT/US00/05881

Ala Cys Val Ile Ala Gly Ala Gly Ile Ala Leu Ile Pro Arg Ser Met

Leu Glu Ser Met Pro Gly His His Gln Val Glu Xaa Xaa Ala Val Ser 135

<210> 535

WO 00/55173

<211> 175

<212> PRT

<213> Homo sapiens

<400> 535

Arg Ala Pro Ala Arg Ile Ser Gly Gly Gly Ser Ala Met Val Gly Gly

Gly Gly Val Gly Gly Leu Leu Glu Asn Ala Asn Pro Leu Ile Tyr 25

Gln Arg Ser Gly Glu Arg Pro Val Thr Ala Gly Glu Glu Asp Glu Gln 40

Val Pro Asp Ser Ile Asp Ala Arg Glu Ile Phe Asp Leu Ile Arg Ser

Ile Asn Asp Pro Glu His Pro Leu Thr Leu Glu Glu Leu Asn Val Val 70 75

Glu Gln Val Arg Val Gln Val Ser Asp Pro Glu Ser Thr Val Ala Val

Ala Phe Thr Pro Thr Ile Pro His Cys Ser Met Ala Thr Leu Ile Gly 105

Leu Ser Ile Lys Val Lys Leu Leu Arg Ser Leu Pro Gln Arg Phe Lys 115 120

Met Asp Val His Ile Thr Pro Gly Thr His Ala Ser Glu His Ala Val 130 135

Asn Lys Gln Leu Ala Asp Lys Glu Arg Val Ala Ala Ala Leu Glu Asn 150 155

Thr His Leu Leu Glu Val Val Asn Gln Cys Leu Ser Ala Arg Ser 165 170

. . . .

<210> 536

<211> 148

<212> PRT

<213> Homo sapiens

<400> 536

Gly Trp His Arg Thr His His Arg Gly Arg His Gln Ala Arg Glu Ala 1 5 10 15

Glu Glu Glu Ala Trp Ala Ala Ala Glu Pro Ile Lys Lys Val Arg Lys
20 25 30

Ser Leu Ala Leu Asp Ile Val Asp Glu Asp Val Lys Leu Met Met Ser 35 40 45

Thr Leu Pro Lys Ser Leu Ser Leu Pro Thr Thr Ala Pro Ser Asn Ser 50 55 60

Ser Ser Leu Thr Leu Ser Gly Ile Lys Glu Asp Asn Ser Leu Leu Asn 65 70 75 80

Gln Gly Phe Leu Gln Ala Lys Pro Glu Lys Ala Ala Val Ala Gln Lys 85 90 95

Pro Arg Ser His Phe Thr Thr Pro Ala Pro Met Ser Ser Ala Trp Lys
100 105 110

Thr Val Ala Cys Gly Gly Thr Arg Asp Gln Leu Phe Met Gln Glu Lys 115 120 125

Ala Arg Gln Leu Leu Gly Arg Leu Lys Pro Ser His Thr Ser Arg Thr 130 135 140

Leu Ile Leu Ser 145

<210> 537

<211> 70

<212> PRT

<213> Homo sapiens

<220>

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<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

489

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 537

Arg Pro Thr Arg Ser Ala Trp Trp Gly Arg Leu Leu Ser Arg Val Ser 1 5 10 15

Pro Gln Pro Arg Pro Ala Ser Pro Ser Val Ser Thr Arg Asn Gln Leu 20 25 30

Pro Glu Ala Arg Arg Gly Val Glu Xaa Xaa Glu Cys Glu Glu Thr Ala 35 40 45

Ala Ser Ala Glu Arg Ala Gly Pro Pro Arg Ala Leu Val Phe Gly Ala 50 55 60

Gln Ser Arg Ser Pro Gly
65 70

<210> 538

<211> 206

<212> PRT

<213> Homo sapiens

<400> 538

Gly Glu Val Ser Ala Ser Gly Ile Ala Arg Arg Gly Gly Pro Met Ala 1 5 10 15

Pro Leu Gly Gly Ala Pro Arg Leu Val Leu Leu Phe Ser Gly Lys Arg 20 25 30

Lys Ser Gly Lys Asp Phe Val Thr Glu Ala Leu Gln Ser Arg Leu Gly 35 40 45

Ala Asp Val Cys Ala Val Leu Arg Leu Ser Gly Pro Leu Lys Glu Gln 50 55 60

Tyr Ala Gln Glu His Gly Leu Asn Phe Gln Arg Leu Leu Asp Thr Ser 65 70 75 80

Thr Tyr Lys Glu Ala Phe Arg Lys Asp Met Ile Arg Trp Gly Glu Glu 85 90 95

Lys Arg Gln Ala Asp Pro Gly Phe Phe Cys Arg Lys Ile Val Glu Gly
100 105 110

Ile Ser Gln Pro Ile Trp Leu Val Ser Asp Thr Arg Arg Val Ser Asp 115 120 125

Ile Gln Trp Phe Arg Glu Ala Tyr Gly Ala Val Thr Gln Thr Val Arg 130 135 140

Val Val Ala Leu Glu Gln Ser Arg Gln Gln Arg Gly Trp Val Phe Thr 145 150 155 160

Pro Gly Val Asp Asp Ala Glu Ser Glu Cys Gly Leu Asp Asn Phe Gly 165 170 175

Asp Phe Asp Trp Val Ile Glu Asn His Gly Val Glu Gln Arg Leu Glu 180 185 190

Glu Gln Leu Glu Asn Leu Ile Glu Phe Ile Arg Ser Arg Leu 195 200 205

<210> 539

<211> 350

<212> PRT

<213> Homo sapiens

<400> 539

Ser Thr Leu Ile Ala Phe Ile Val Ile Ser Thr Leu Phe Pro Leu Leu l 5 10 15

Asp Met Thr Glu Ile Tyr Phe Ser Leu Leu Asp Glu Ile Val Asp Thr
20 25 30

Leu Gly Glu Gly Ala Phe Gly Lys Val Val Glu Cys Ile Asp His Lys 35 40 45

Ala Gly Gly Arg His Val Ala Val Lys Ile Val Lys Asn Val Asp Arg 50 55 60

Tyr Cys Glu Ala Ala Arg Ser Glu Ile Gln Val Leu Glu His Leu Asn 65 70 75 80

Thr Thr Asp Pro Asn Ser Thr Phe Arg Cys Val Gln Met Leu Glu Trp 85 90 95

Phe Glu His His Gly His Ile Cys Ile Val Phe Glu Leu Leu Gly Leu 100 105 110

Ser Thr Tyr Asp Phe Ile Lys Glu Asn Gly Phe Leu Pro Phe Arg Leu 115 120 125

Asp His Ile Arg Lys Met Ala Tyr Gln Ile Cys Lys Ser Val Asn Phe 130 135 140

Leu His Ser Asn Lys Leu Thr His Thr Asp Leu Lys Pro Glu Asn Ile 155 Leu Phe Val Gln Ser Asp Tyr Thr Glu Ala Tyr Asn Pro Lys Ile Lys 165 Arg Asp Glu Arg Thr Leu Ile Asn Pro Asp Ile Lys Val Val Asp Phe Gly Ser Ala Thr Tyr Asp Asp Glu His His Ser Thr Leu Val Ser Thr 195 200 205 Arg His Tyr Arg Ala Pro Glu Val Ile Leu Ala Leu Gly Trp Ser Gln Pro Cys Asp Val Trp Ser Ile Gly Cys Ile Leu Ile Glu Tyr Tyr Leu 235 Gly Phe Thr Val Phe Pro Thr His Asp Ser Lys Glu His Leu Ala Met 245 Met Glu Arg Ile Leu Gly Pro Leu Pro Lys His Met Ile Gln Lys Thr 265 Arg Lys Arg Lys Tyr Phe His His Asp Arg Leu Asp Trp Asp Glu His 280 275 285 Ser Ser Ala Gly Arg Tyr Val Ser Arg Arg Cys Lys Pro Leu Lys Glu Phe Met Leu Ser Gln Asp Val Glu His Glu Arg Leu Phe Asp Leu Ile 310 315 Gln Lys Met Leu Glu Tyr Asp Pro Ala Lys Arg Ile Thr Leu Arg Glu 325 330 Ala Leu Lys His Pro Phe Phe Asp Leu Leu Lys Lys Ser Ile 340 345

<210> 540

<211> 324

<212> PRT

<213> Homo sapiens

<220>

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<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

WO 00/55173

492

PCT/US00/05881

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<222> (56)
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<220>
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<222> (297)
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<220>
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<220>
<221> SITE
<222> (305)
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (321)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 540
Gln Ala Thr Met Gly Asn Val Leu Ala Ala Ser Ser Pro Pro Ala Gly
                  5
Pro Pro Pro Pro Pro Ala Pro Ala Leu Val Gly Leu Pro Pro Pro
                                 25
Pro Ser Pro Pro Gly Phe Thr Leu Pro Pro Leu Gly Gly Ser Leu Gly
                             40
         35
                                                 45
Ala Gly Thr Ser Thr Xaa Arg Xaa Ser Glu Arg Thr Pro Gly Ala Ala
    50
                         55
Thr Ala Ser Ala Ser Gly Ala Ala Glu Asp Gly Ala Cys Gly Cys Leu
                     70
                                         75
Pro Asn Pro Gly Thr Phe Glu Glu Cys His Arg Lys Cys Lys Glu Leu
                 85
Phe Pro Ile Gln Met Glu Gly Val Lys Leu Thr Val Asn Lys Gly Leu
            100
                                105
```

493

Ser	Asn	His 115	Phe	Gln	Val	Asn	His 120	Thr	Val	Ala	Leu	Ser 125	Thr	Ile	Gly
Glu	Ser 130	Asn	Tyr	His	Phe	Gly 135	Val	Thr	Туr	Val	Gly 140	Thr	Lys	Gln	Lev
Ser 145	Pro	Thr	Glu	Ala	Phe 150	Pro	Val	Leu	Val	Gly 155	Asp	Met	Asp	Asn	Ser 160
Gly	Ser	Leu	Asn	Ala 165	Gln	Val	Ile	His	Gln 170	Leu	Gly	Pro	Gly	Leu 175	Arg
Ser	Lys	Met	Ala 180	Ile	Gln	Thr	Gln	Gln 185	Ser	Lys	Phe	Val	Asn 190	Trp	Gln
Val	Asp	Gly 195	Glu	Tyr	Arg	Gly	Ser 200	Asp	Phe	Thr	Ala	Ala 205	Val	Thr	Leu
Gly	Asn 210	Pro	Asp	Val	Leu	Val 215	Gly	Ser	Gly	Ile	Leu 220	Val	Ala	His	Tyr
225					Pro 230					235					240
His	Arg	Arg	Pro	Gly 245	Glu	Glu	Gly	Thr	Val 250	Met	Ser	Leu	Ala	Gly 255	Lys
Tyr	Thr	Leu	Asn 260	Asn	Trp	Leu	Ala	Thr 265	Val	Thr	Leu	Gly	Gln 270	Ala	Gly
Met	His	Ala 275	Thr	Tyr	Tyr	His	Lys 280	Ala	Ser	Asp	Gln	Leu 285	Gln	Val	Gly
	290				Ser	295					300				
Xaa 305	Val	Pro	Ala	Trp	Asn 310	Leu	Pro	Lys	Gly	Gln 315	Pro	Xaa	Leu	Ser	Lys 320

<210> 541

<211> 204

<212> PRT

<213> Homo sapiens

Xaa Leu Leu Gly

<400> 541

WO 00/55173

494

Arg Gly Pro Thr Phe Thr Pro Glu Ile Met Ala Ala Glu Asp Val Val Ala Thr Gly Ala Asp Pro Ser Asp Leu Glu Ser Gly Gly Leu Leu His 20 Glu Ile Phe Thr Ser Pro Leu Asn Leu Leu Leu Gly Leu Cys Ile Phe Leu Leu Tyr Lys Ile Val Arg Gly Asp Gln Pro Ala Ala Ser Gly 55 Asp Ser Asp Asp Glu Pro Pro Pro Leu Pro Arg Leu Lys Arg Arg Asp Phe Thr Pro Ala Glu Leu Arg Arg Phe Asp Gly Val Gln Asp Pro Arg Ile Leu Met Ala Ile Asn Gly Lys Val Phe Asp Val Thr Lys Gly 100 105 Arg Lys Phe Tyr Gly Pro Glu Gly Pro Tyr Gly Val Phe Ala Gly Arg 120 Asp Ala Ser Arg Gly Leu Ala Thr Phe Cys Leu Asp Lys Glu Ala Leu 130 135 Lys Asp Glu Tyr Asp Asp Leu Ser Asp Leu Thr Ala Ala Gln Glu Thr Leu Ser Asp Trp Glu Ser Gln Phe Thr Phe Lys Tyr His His Val

Gly Lys Leu Leu Lys Glu Gly Glu Glu Pro Thr Val Tyr Ser Asp Glu

200

Glu Glu Pro Lys Asp Glu Ser Ala Arg Lys Asn Asp

185

190

<210> 542

<211> 193

<212> PRT

<213> Homo sapiens

195

180

<220>

<221> SITE

<222> (183)

<223> Xaa equals any of the naturally occurring L-amino acids

WO 00/55173

495

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Pro 1	Ala	Tyr	Ser	Leu 5	Gly	Leu	Leu	Lys	Ser 10	Val	Leu	Asp	Gly	Gly 15	Gly
Ala	Gly	Ala	His 20	Gln	Ala	Arg	Ser	Asn 25	Pro	Ser	Cys	Met	Tyr 30	Pro	Glr
Gly	Thr	Phe 35	Val	Ile	Pro	Leu	Leu 40	Val	Thr	Ala	His	Arg 45	Asp	Pro	Thr
Gln	Phe 50	Lys	Asp	Pro	Asp	Cys 55	Phe	Asn	Pro	Thr	Asn 60	Phe	Leu	Asp	Lys
Gly 65	Lys	Phe	Gln	Gly	Asn 70	Asp	Ala	Phe	Met	Pro 75	Phe	Ala	Ser	Gly	Ala 80
Gly	Arg	Gly	Gly	Arg 85	Gly	Pro	Ala	Trp	Thr 90	Gly	Ser	Gly.	Val	Pro 95	Gly
Ala	His	Cys	Ala 100	Pro	Val	Tyr	Pro	Ala 105	Lys	Gln	Met	Cys	Leu 110	Gly	Thr
Gly	Leu	Ala 115	His	Ser	Gly	Ile	Phe 120	Leu	Phe	Leu	Thr	Ala 125	Thr	Leu	Gln
Arg	Phe 130	Cys	Leu	Leu	Pro	Val 135	Val	Arg	Pro	Gly	Thr 140	Ile	Asn	Leu	Thr
Cys 145	Ser	Ala	Leu	Ala	Trp 150	Ala	Val	Ser	Pro	Gln 155	Thr	Ser	Ser	Ser	Ser 160
Gln	Trp	Pro	Ala	Glu 165	Val	Arg	Leu	His	-	-	Gly		Thr	Gly	Pro

Gln Thr Ser Ile Pro Ser Xaa Val Asn Lys Gly Pro Lys Leu Gln Lys

180 185

Lys

<210> 543

<211> 352

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

PCT/US00/05881

WO 00/55173

<22															
	1> S														
		154)													
<22	3> x	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<22															
	1> S														
		167)													
<22	3> X	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
- 4 4	. .														
	0> 5														
		Val	Arg			GIA	Arg	Pro		Arg	Pro	Met	Ala		Glu
1				5					10					15	
Clu	Dro	C1n	Cla	Cla	T	C1 -	G1	Due	T	G1	0	•		a 1	**- 1
GLU	PIO	GIII	20		rys	GIN	GIU		Leu	Gly	ser	Asp		GIU	vaı
			20					25					30		
T.eu	ጥ ከr	Val	ጥተቡ	Pro	Mat	Mat	Tue	Pro	Sor	Trp	T 011	Sor	D = 0	Th.∽	C1.
204	~	35		110	1166	riec	40	FIU	361	ırþ	Leu	45	ALY	1111	GIU
							10					7.7			
Phe	Ser	Lvs	Arg	Leu	Leu	Cvs	Ara	Thr	Leu	Trp	Cvs	Gln	Ser	Glv	Tro
	50	-	•			55	,				60			1	
Ser	Ser	Arg	Ser	Tyr	Thr	Arg	Ser	Met	Leu	Lys	Met	Thr	Thr	Ser	Ile
65		_			70	_				75					80
Asn	Arg	Arg	Ser	Arg	Thr	Ser	Thr	Lys	Ser	Thr	Arg	Thr	Ser	Ala	Arg
				85					90					95	
Pro	Gly	Leu	Thr	Ala	Thr	Val	Ser	Ile	Gly	Leu	Ser	Asp	Ser	Pro	Thr
			100					105					110		
Trp	Arg	His	Cys	Trp	Met	Thr	Ala	Arg	Ser	Cys	Ser	Gly	Glu	Lys	Gly
		115					120					125			
_															
Gly		Trp	Ala	Pro	Arg		Val	Gly	Val	Tyr		Leu	Pro	Gly	Arg
	130					135					140				
	Gly	Cys	Val	Ser		Arg	Val	Ser	Xaa	Ser	Phe	Pro	Gly	Asp	
145					150					155					160
_		_		_			_				_		_		
Leu	Asp	Ser	GLy		Ala	Xaa	Arg	Gly		Ala	Val	Ser	Ala		Ala
				165					170					175	
C	61.	*	11-3	63	G3	n		_		_	_	-		_	
ser	GTÀ	Leu		GIU	GIU	Pro	Met		Gly	Pro	Pro	Phe		Pro	Thr
			180					185					190		
Dro	A ===	Dhe	Luc	Δla	V=1	86=	21-	T	C	T	C1	A c =	T.C.	17~ 1	C c ==
*10	ar y	195	пåэ	VIG	AGI	SEL	200	_	ser	Lys	GIU	205	ren	Val	ser

WO 00/55173

PCT/US00/05881

Lys Val Tyr Leu Leu Tyr Arg Pro Gly His Tyr Asp Ile Leu Tyr Lys 340 345 350

497

<210> 544 <211> 240 <212> PRT <213> Homo sapiens

<400> 544

Ser Thr His Ala Ser Glu Met Ala Glu Arg Gly Tyr Ser Phe Ser Leu

1 5 10 15

Thr Thr Phe Ser Pro Ser Gly Lys Leu Val Gln Ile Glu Tyr Ala Leu 20 25 30

Ala Ala Val Ala Gly Gly Ala Pro Ser Val Gly Ile Lys Ala Ala Asn 35 40

Gly Val Val Leu Ala Thr Glu Lys Lys Gln Lys Ser Ile Leu Tyr Asp 50 55 60

Glu Arg Ser Val His Lys Val Glu Pro Ile Thr Lys His Ile Gly Leu

498

65					70					75					80
Val	туг	Ser	Gly	Met 85	Gly	Pro	Asp	Tyr	Arg 90	Val	Leu	Val	His	Arg 95	Ala
Arg	Lys	Leu	Ala 100	Gln	Gln	Tyr	Tyr	Leu 105	Val	·Tyr	Gln	Glu	Pro 110	Ile	Pro
Thr	Ala	Gln 115	Leu	Val	Gln	Arg	Val 120	Ala	Ser	Val	Met	Gln 125	Glu	туг	Thr
Gln	Ser 130	Gly	Gly	Val	Arg	Pro 135	Phe	Gly	Val	Ser	Leu 140	Leu	Ile	Cys	Gly
Trp 145	Asn	Glu	Gly	Arg	Pro 150	Туr	Leu	Phe	Gln	Ser 155	Asp	Pro	Ser	Gly	Ala 160
Tyr	Phe	Ala	Trp	Lys 165	Ala	Thr	Ala	Met	Gly 170	Lys	Asn	Tyr	Val	Asn 175	Gly
Lys	Thr	Phe	Leu 180	Glu	Lys	Arg	Tyr	Asn 185	Glu	Asp	Leu	Glu	Leu 190	Glu	Asp
Ala	Ile	His 195	Thr	Ala	Ile	Leu	Thr 200	Leu	Lys	Glu	Ser	Phe 205	Glu	Gly	Gln
Met	Thr 210	Glu	Asp	Asn	Ile	Glu 215	Val	Gly	Ile	Cys	Asn 220	Glu	Ala	Gly	Phe
Arg 225	Arg	Leu	Thr	Pro	Thr 230	Glu	Val	Lys	Asp	Tyr 235	Leu	Ala	Ala	Ile	Ala 240

<210> 545

<211> 181

<212> PRT

<213> Homo sapiens

<400> 545

Arg Cys Ile Leu Tyr Thr Gly Phe Met Leu Gly Ala Gln Arg Glu Val 1 5 10 15

Asp Ser Arg Leu Leu Ala Leu Pro Gly Arg Lys Val Pro Thr Ser Trp $20 \hspace{1cm} 25 \hspace{1cm} 30$

Trp Asp Asp Leu Phe Lys Gly Ala Lys Glu His Gly Ala Val Ala Val 35 40 45

499

Glu Arg Val Thr Lys Ser Pro Gly Glu Thr Ser Lys Pro Arg Pro Phe Ala Gly Gly Tyr Arg Leu Gly Ala Ala Pro Glu Glu Glu Ser Ala 75 Tyr Val Ala Gly Glu Lys Arg Gln His Ser Ser Gln Asp Val His Val 85 Val Leu Lys Leu Trp Lys Ser Gly Phe Ser Leu Asp Asn Gly Glu Leu 105 Arg Ser Tyr Gln Asp Pro Ser Asn Ala Gln Phe Leu Glu Ser Ile Arg 120 Arg Gly Glu Val Pro Ala Glu Leu Arg Arg Leu Ala His Gly Gly Gln 135 Val Asn Leu Asp Met Glu Asp His Arg Asp Glu Asp Phe Val Lys Pro Lys Gly Ala Phe Lys Ala Phe Thr Gly Glu Gly Gln Lys Leu Gly Ser 165 170 Thr Ala Pro Arg Cys 180 <210> 546 <21:1> 197 <212> PRT <213> Homo sapiens <400> 546 Pro Arg Val Arg Arg Ala Arg Ala Ala Ala Gly Ser Ser His Ala Ala Met Ala Asp Ser Glu Leu Gln Leu Val Glu Gln Arg Ile Arg Ser 25 Phe Pro Asp Phe Pro Thr Pro Gly Val Val Phe Arg Asp Ile Ser Pro 40 Val Leu Lys Asp Pro Ala Ser Phe Arg Ala Ala Ile Gly Leu Leu Ala

Arg His Leu Lys Ala Thr His Gly Gly Arg Ile Asp Tyr Ile Ala Gly

Leu Asp Ser Arg Gly Phe Leu Phe Gly Pro Ser Leu Ala Gln Glu Leu 85 Gly Leu Gly Cys Val Leu Ile Arg Lys Arg Gly Lys Leu Pro Gly Pro 100 105 Thr Leu Trp Ala Ser Tyr Ser Leu Glu Tyr Gly Lys Ala Glu Leu Glu 120 Ile Gln Lys Asp Ala Leu Glu Pro Gly Gln Arg Val Val Val Asp 135 Asp Leu Leu Ala Thr Gly Gly Thr Met Asn Ala Ala Cys Glu Leu Leu Gly Arg Leu Gln Ala Glu Val Leu Glu Cys Val Ser Leu Val Glu Leu 165 170 Thr Ser Leu Lys Gly Arg Glu Lys Leu Ala Pro Val Pro Phe Phe Ser 180 185 Leu Leu Gln Tyr Glu 195 <210> 547 <211> 93 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (84) <223> Xaa equals any of the naturally occurring L-amino acids Glu Thr Gly Lys Glu Ser Lys Ala Leu Phe Leu Pro Phe Pro Gly Ser Val Tyr Ser Thr Ser Thr Gly Glu Ala Ser Gly Glu Gly Leu Ser Pro 25 Leu Pro His Leu His Glu Phe Trp Asn Ser Val Leu Leu Ala Ala Cys Phe Gln Leu Pro Pro Ile Ser Ile Ala Ala Gly Ser Ser Cys Leu Phe

Tyr Ser Val Ile Lys His Pro Ala Pro Thr Leu Ser Gln Arg Ser Ile

75